

THE POLITICAL AND ADMINISTRATIVE CONTEXT OF PRIMARY HEALTH CARE IN THE THIRD WORLD*

THOMAS J. BOSSERT¹ and DAVID A. PARKER²

¹Sarah Lawrence College, Bronxville, NY 10708 and Harvard School of Public Health, Boston, MA 02115
and ²Woodrow Wilson School of Public and International Affairs, Princeton University, Princeton,
NJ 08540, U.S.A.

Abstract—Despite increasing knowledge about technical aspects of Primary Health Care (PHC), there has been as yet only limited research into political and administrative influence on the effectiveness of PHC programs. A three-stage model of the policy process is developed as a framework for organizing the relationships between elements of (1) the national political setting and PHC policy formulation; (2) the implementing agency and program administration; and (3) the community setting and service delivery. Drawing upon the literature on PHC and related programs, hypotheses are proposed for each of these stages as a basis for future study and practical application. Possible output indicators are suggested for each stage of the model. Several basic methodological issues must be addressed in the design of empirical research on political-administrative factors, including variable selection, identification of data sources, and choice of analytical approach. It is hoped that this review will encourage more systematic investigation in this area.

Over the past decade, Primary Health Care (PHC) has become increasingly institutionalized in Third World countries. The PHC approach provides essential health services, mainly to dispersed rural populations which often did not have regular access to public or private health care. These new services have generally been designed with the objectives of integrating preventive and curative activities, making use of multiple levels of health workers and promoting local participation in service delivery. Experience over the decade has led to substantial improvements in the technical capability to develop PHC resources and to respond to the health needs of rural populations in the less developed countries (LDCs).

Despite this practical knowledge about PHC, program performance has been varied. Not only the design of PHC efforts, but also the ability to implement them, have been shown to be constrained by characteristics of the particular country or regional location in which they are conducted. A growing literature demonstrates that the *context* of PHC—the political, administrative and community settings in which programs are designed and carried out—as well as the different strategies and processes involved in their adoption and implementation, exert important influences on program outcomes. At the extreme, these influences may severely restrict the successful performance of apparently well-designed PHC programs.

There remains considerable scope for improving program performance through a better understanding of the structures and processes which form the context of PHC policy. In an effort to suggest a manner in which these issues can be examined within a systematic and comprehensive framework, the first section of this paper proposes a general analytical

model of the policy process for PHC. The second section uses this model to introduce and review the relevant literature on PHC, and the third draws from this literature to identify a set of propositions concerning the dynamics of PHC that might serve as hypotheses in further study. The conclusion discusses several important issues of design and methodology for future research in this area.

PRIMARY HEALTH CARE AND THE POLICY PROCESS

Current approaches to PHC have emerged from an increasing awareness of unmet health needs, and the experience of a number of health projects and programs since the mid-1960s [1-3]. Within the comprehensive definition set out by WHO and UNICEF in the 'Declaration of Alma Ata', PHC is identified as having the following principal features:

It includes promotive, preventive, curative and rehabilitative services, to focus on the main health problems in the community;

It has at least eight minimum components—health education, nutrition services, water supply and sanitation, maternal and child health care (including family planning), immunization, prevention and control of endemic diseases, treatment of common diseases and injuries and provision of essential drugs;

It is intersectoral in orientation, involving coordination with activities in related sectors such as nutrition and public works;

It is based upon local self-reliance and community participation; and

It makes use of all levels of health workers, including paraprofessionals, and is part of a larger system of referral for specialized care [4].

*This paper is based upon a review conducted for the Office of Health, U.S. Agency for International Development.

Implementation of these activities is an ambitious and long-term objective, and one which requires

considerable alteration of the current health care systems of most developing countries. Furthermore, the extent and intensity of the specific PHC services provided—the 'technical package'—is clearly conditioned by local needs and resources. Thus, within this general PHC model, countries and international agencies have adopted a variety of PHC program designs.

This growing experience with PHC has been subject to a number of assessments in recent years. These include reviews of the effectiveness of PHC-oriented projects in achieving changes in health levels [5]; broader examinations of the potential for expansion of PHC internationally [6-8]; and increasing concern with the financing of PHC [9, 10]. It is beyond the scope of this article to review this technical literature in detail, yet it is clear from these assessments that evidence of the effectiveness of PHC remains rudimentary. On balance, available studies suggest that PHC is likely to have a positive impact on health levels in rural areas; however, it has not been clearly shown that PHC is the most cost-effective means of providing health care to these populations. Impressionistic information suggests that PHC will be effective only if political and administrative conditions allow the development of smoothly running program implementation [11].

In order better to understand the political and administrative dynamics of PHC, we have developed a model of the PHC 'policy process'. This model, taking into account the relation of PHC to its various contexts, provides a framework for organizing the literature on PHC, and serves as a basis for the identification and possible testing of hypotheses concerning PHC performance. To fulfill these purposes, the model is designed to meet several minimum conditions: (1) it should be relatively simple, in order to be understandable to a wide range of audiences; (2) it should be operationally meaningful, in order to correspond to identifiable activities and processes, and to allow the development of specific indicators of policy inputs and outputs; and (3) it should be empirically testable, to permit verification and to promote the introduction of feedback for continuing refinement.

The model first makes a fundamental distinction between *policy formulation*—the broad choice of goals, objectives and means—and *implementation*—the translation of policy into action programs for the achievement of policy goals. Numerous more complex models have been put forward in the literature, which further categorize policy activities in greater detail [12, 13]. In light of the principles noted above, we follow a classification made by Korten and others, in which the implementation phase is further separated into stages corresponding to 'management' and 'operational' activities, respectively [14]. The resulting three stages of the policy process may be set out as:

- (1) *Policy formulation*: the selection of goals to be achieved through intervention; the identification of broad strategies for the pursuit of these goals; and the assignment of budgets and institutional responsibilities for carrying out the chosen strategies.
- (2) *Program administration*: the translation of

adopted policies into the design of action programs, through the preparation of a detailed plan, the establishment of management procedures and organizational structure and the introduction of pilot activities.

- (3) *Service delivery*: The operation of the planned action program at the field level, and the provision of services in target communities to achieve the goals of the policy.

As relatively distinct activities within the policy process, these stages correspond closely to the three principal levels or contexts of PHC—the national political arena, the implementing agency (usually the Ministry of Health) and the community setting. Specific measures of output are identified at each stage, to permit the assessment of policy performance.

It will be observed that the ultimate technical objective of PHC—the actual improvement of population health status—is not included in this approach. As noted earlier, the linkage between health policies and identifiable changes in health status has yet to be firmly established; the more limited objective at present is to identify factors which affect or constrain the 'smooth-runningness' of PHC services. Through this analysis it will then be possible to suggest conditions under which programs could have significant effects on health status.

It must be emphasized that this model, like any other, is a heuristic device which may assist in our thinking about policy processes. All models pose risks of oversimplifying complex phenomena, and here we will note several limitations on the usefulness of our approach which may make it difficult to apply such an 'ideal' sequence directly to actual cases.

First, as Grindle observes, a policy often evolves over time and during program operations, as objectives are reinterpreted or defined more precisely [15]. Thus, goal-setting cannot be confined to 'policy formulation', since goals may change over the course of implementation. Such reinterpretation has occurred, for example, in the family planning and nutrition areas, in which many formerly vertical programs have become integrated within a broader maternal and child health care strategy [16].

Second, it has been argued that *sequences* are not as important as the *types* of decisions that are being made, such as the distinction between 'political' and 'technical' decisions. In this view, political decisions are those concerned with resource allocation, authority and control relations, and the interface of health services with people, while technical considerations relate to the operational efficiency of particular program designs [17]. In the framework presented here, most technical decisions have been assigned to the 'content' of policy, and discussion is focused instead on the range of political and administrative decisions which are central to the policy process. However, this distinction tends to obscure channels through which technical decisionmaking may influence 'political' dimensions in undetected ways [18].

Third, some analysts advocate the study of political-administrative systems as a whole, rather than attempting separately to examine individual elements of the policy process [19, 20]. This perspec-

tive emphasizes the analytical complexity of the relationships among identified contextual factors. In our model, for example, the predictable resistance of the medical profession exerts influence in all stages of the policy process. Similarly, a 'regime' factor such as the stability of the government may affect health agency decisions as well as community-level politics, and the degree of administrative decentralization conditions both the planning process and the incentives for community participation in PHC. Finally, 'background factors' such as health conditions and the availability of economic resources are likely to influence the other three contexts as well.

In view of these limitations, this model cannot be rigidly applied to all policy settings. As will be seen, however, it is useful for organizing the literature on PHC, and for allowing the systematic development of hypotheses which relate contextual factors to specific PHC outputs.

OVERVIEW OF THE LITERATURE

PHC has become the subject of a wide literature, encompassing published books and articles as well as unpublished reports and other documents. Using the framework that has been introduced, this literature may be broadly divided into those analyses which consider PHC as: (a) a specific *policy*; (b) a type of *program*; and (c) an activity carried out *in the community*.

PHC as policy

The 'policy' literature on PHC uses a variety of social science perspectives to examine the question of how PHC is placed on the policy agenda. Some authors have focused on systemic conditions which foster the formulation of new health approaches (e.g. socialist vs capitalist systems), while others have given primary attention to the actors involved in encouraging governments to adopt PHC policies. The focus on systemic factors has emerged from earlier literature on the process of socioeconomic development which sought to distinguish the policy choices of different types of political regimes. In general, no strong relationship was found between regime type and the content of national decisionmaking [21, 22]. Other authors, however, have emphasized that socialist regimes may be particularly conducive to policy innovation, especially in the health sector [23]. Additionally, much of the research on policy actors in PHC has tended to emphasize the contributions of international participants in national policy processes [24].

Studies of population and family planning programs have examined in considerable detail aspects of the formulation of population policy. This literature, which is devoted largely to case materials and broad aggregate analysis, includes a wide range of papers in edited collections [25-27], along with a smaller number of more analytical studies [28]. While not conclusive, the findings of this research suggest that demographic, economic and regime characteristics, as well as interest group activities, set important conditions for policymaking.

A longstanding interest in the formulation of national health policy is reflected in the political

science literature, which has focused primarily on developed countries [29-31]. These studies have been supported by a substantial treatment of political issues in the more theoretical literature on comparative health systems [32-34]. As described below, research on health policymaking in LDCs includes many detailed case studies as well as some limited comparative studies. A major contribution in this area is the recent study of national decisionmaking for PHC in seven countries, sponsored by the Joint Committee on Health Policy of UNICEF and WHO [35].

This literature has contributed significantly to an understanding of the health policy process and of the dynamics of PHC policymaking. Overall, however, it is limited by a lack of output measurements related to specific plan provisions and budget allocations and it remains principally descriptive in character.

PHC as program

A considerably greater amount of attention has been given to the implementation of PHC, regarding the operation of programs once national policies have been established. Work in this area has emerged from two principal sources—the general field of development administration and evaluations made of health sector programs. These directions of investigation are presently converging in useful ways.

The term 'development administration' refers to a variety of approaches to the study of bureaucratic processes in developing countries, focusing on efforts by national governments and outside organizations to improve administrative performance. Existing institutional structures are viewed as playing a large role in the effectiveness of all types of development activities, including health care [36]. Recently the emphasis of study in this field has shifted from administrative structures to program dynamics, a trend which has resulted in a large and growing body of research on implementation, on 'how programs work'. The implementation literature has emphasized issues of institutional linkage, timing of activities, aspects of program content, administrative leadership and personnel motivation [37-39].

The implementation of health programs, including PHC efforts, has been addressed systematically in a relatively small number of studies, but there is an increasing application of general administrative and managerial principles to health sector concerns [40, 41]. Much of the research on health program implementation has been based upon evaluations of pilot and demonstration projects conducted over the past decade. Summaries and descriptive analyses of many such projects have been prepared [42, 43]. Detailed studies, especially of large-scale demonstration projects, reflect a broad scope of analytical methods and applications [44-47]. Case materials on programs in related sectors such as nutrition [48, 49] and water supply [50] are also highly relevant to PHC. These and other sources have led to analyses incorporating implementation considerations into health program evaluation [51].

The 'program' literature has thus begun to link design issues with factors of the political and administrative environment in explicit ways. However, as with the literature on policy formulation, available

studies of implementation tend to be largely descriptive and call for considerable refinement in their employment of comparative indicators of implementation effectiveness.

PHC in the community

The 'community-level' literature is concerned with the management and operations of PHC programs at the local site of service delivery. Of particular concern are efforts to promote community participation in program activities and to expand the utilization of paraprofessional workers.

Here again, much of our present knowledge originated from projects to improve the delivery of community-based family planning services. In recent years a large body of useful work has also been directed towards enhancing the management of integrated rural development (IRD) programs, which combine broad sets of activities for the development of agricultural regions [52]. Similarities and interrelationships between these undertakings and PHC have made much of this research readily applicable to service delivery under the PHC approach. There is increasing attention to problems in the management of community health programs [53] and much of the 'program' literature described above documents community-level operations in PHC pilot projects.

Local participation in community settings is an integral aspect of PHC. It is seen as a means of generating and maintaining support *vis-à-vis* other development activities. A growing body of research focuses on the experience and problems of local participation in rural programs, including those in health [54]. In addition, international agencies have devoted substantial attention to local participation in PHC projects [55, 56].

There is also a large amount of research describing the role of paraprofessionals in the delivery of PHC and related services; this has examined the training, functions, and performance of many different categories of local health workers [46, 57]. The use of more highly trained, 'intermediate' levels of health workers has also been explored [58]. In addition, the potential for incorporation and utilization of indigenous medical practitioners has been widely studied from a variety of disciplinary perspectives [59-61].

In general, the 'community' literature is the most comprehensive and best developed of the PHC materials. This emphasis may be appropriate, since the focal point for PHC intervention has historically been the expansion of services at the community level. This literature has been the most successful in addressing the linkages between policy objectives and operational variables. However, as in the other cases, there has been little direct assessment of the relationships between implementation processes and desired outcomes, and there have been relatively few attempts to compare experiences across a large number of nations.

The state of the art

In summary, the PHC literature to date contains useful elements of a general framework for policy analysis, along with scattered examinations of political and administrative influences on health care and other human development projects. There are also

several notable examples of comparative analysis of these factors, which point the way for further research. Nevertheless, at least three major problems may be identified in this work:

Narrow focus: very little of the PHC research surveyed addresses more than a small part of the 'policy problem'. Studies tend to focus either on issues of technical content or on particular stages of the policy process, with limited regard for how the specific questions they examine are conditioned by the wider political-administrative context or by other stages in the process.

An emphasis on description, rather than on generalizable analysis: most of the available materials are not only limited in scope, but in their approach to analysis as well. Most studies are descriptive and attention tends not to be paid to conceptual development or to specific measures of PHC effectiveness. Even the evaluation literature is surprisingly weak in this respect. There is thus little potential at present for the emergence of verifiable generalizations from available published studies.

An absence of comprehensive frameworks for analysis: related to these two points is the lack of comprehensive or unified models for the study of PHC programs in different settings. A variety of approaches and relatively limited models are presented in the literature, but few of these are applied to different types of PHC efforts or to more than one stage of the policy process. Our capacity to speak about the relative significance of PHC outcomes across different national settings, as an essential component of PHC policy assessment, thus remains quite limited.

AN INVENTORY OF HYPOTHESES

For the remainder of this paper we build upon the three-stage model introduced earlier, to outline a systematic approach to the examination of the political and administrative context of PHC. Drawing from the existing literature, we suggest a series of hypotheses which may provide an agenda for future research in this area [62].

(A) Policy formulation

During the process of policy formulation a number of factors help to determine whether a given national government will make a commitment to PHC policies. The successful adoption of a national PHC policy may be indicated by several possible measures, including: (a) a health plan with clearly stated goals and strategies to reach the rural poor through PHC; and (b) an increase in the approved Ministry of Health (or other responsible government agency) budget for PHC activities.

(1) Considering first the *ideology and structural characteristics of regimes and elites*, PHC appears more likely to be adopted under governments:

Which are committed to *social and economic reforms*, particularly in the agrarian sector [63, 64].

Which are pursuing development strategies that emphasize a mixture of *growth and equity objectives*, rather than simply economic growth [35, 65].

Which are facing *political instability*—especially in *status quo*-oriented regimes, elites are likely to adopt

minor reforms such as PHC to promote stability, although conditions of instability are likely to inhibit the implementation of PHC policies [66, 67].

In which there is a greater degree of *democracy*, and in such cases, greater electoral strength on the part of the rural population [68].

(2) The *political influence of beneficiaries and providers* is an important factor in the competition for scarce national resources. The literature suggests that PHC may be more likely to be adopted:

The greater is the *social, ethnic, and religious homogeneity* of the beneficiary population, and the greater is the *equality of income distribution* [54, 69].

The smaller is the role of *traditional practitioners* in the country's health services and the greater is the incorporation of the traditional practice of medicine into the national health care system [59, 61].

The less influential are *national physicians' organizations*, and the smaller is the proportion of physicians in health ministry decisionmaking positions [70].

The stronger is the orientation of *medical training systems* to rural health care [58, 71].

(3) Closely related is the *institutional bargaining* that occurs in the health sector. Adoption of PHC policies may be facilitated by:

A greater *public role*, and a greater proportion of government expenditures, in health care and related sectors [6, 72].

The presence of *related programs* in other sectors, such as nutrition or family planning, and a well-established rural development agency or other inter-sectoral program [15, 38].

A smaller share of the *health ministry budget* going for urban-based hospital care, and a greater share going for rural health services [73].

A greater *government budget share* going to the health sector [11].

Greater involvement by *non-governmental organizations* in rural health services [24, 35].

(4) The *national health planning process* also influences the orientation and scope of PHC strategies selected. The contribution of planning to PHC policymaking appears likely to be greater:

The greater is the reliance on *central planning* of the national economy, and the greater is the *centralization* of the country's political system [30, 74].

The less is the *institutional rivalry* in the health planning process [75-77].

The greater is the *participation by the beneficiary population* in health planning, and the greater are lower-level responsibilities for planning [54, 78].

The greater are the *capabilities for health planning*, particularly in terms of the utilization of formal planning techniques, the linkages between planning and the budgetary process, and the administrative, analytical and data resources available for planning [78, 79].

(5) In addition, *foreign actors*, including international organizations and donor agencies, shape the formulation and implementation of PHC policies. Foreign assistance may be more effective in support of PHC activities:

The greater is the *foreign assistance contribution* to financial and technical aspects of PHC programs [11, 24].

The greater is the *political legitimacy* of foreign assistance in the country, and the greater are country needs for assistance [17].

The greater is the *convergence of goals* for the promotion of PHC among external agencies, and the more effective is the collaboration between these agencies and with the government [24, 80].

The greater is donor agency attention to policy strategies which account for the *local assumption of program costs* [10, 72].

(B) Program administration

Within the administration of PHC programs, the development of commitment to PHC goals and the improvement of administrative processes are found to have significant implications for the successful delivery of services. Possible outputs or indicators of success at this stage include: (a) increases in the numbers of PHC personnel, health clinics, and other resources; (b) an increase in the population coverage of PHC programs; (c) high rates of expenditure of the PHC budget; and (d) the presence of pilot projects or other initial PHC activities in the field.

(1) First, *administrative commitment* to PHC is expected to be greater:

The greater is sustained attention to PHC at *top health ministry levels*, and the more secure is the *tenure* of top-level administrators who are committed to PHC [51].

The more consistent are PHC objectives with the other *goals* of program implementors [15, 46, 77].

The greater is the proportion of *non-physicians* with decisionmaking and implementing responsibilities for PHC [70].

The greater is the commitment of top-level MOH staff to *administrative efficiency* and to necessary administrative reforms [40, 81].

(2) The *administrative capacity* of the health agency is a basic factor in its ability to implement PHC programs. Implementation is likely to be more effective:

The higher is the level of *planning and management skills* within the health agency [19, 37].

The greater is the use of *tactical planning methods* and program budgeting for PHC [35, 82].

The better developed are the health agency's systems for *management information* and program monitoring and evaluation, and the more widely they are utilized at all administrative levels [76, 81].

(3) Procedures for *recruitment and training of workers* are also central to the implementation of PHC and similar programs. Available evidence indicates that PHC programs will be more successful:

The greater the extent to which *recruitment channels* account for existing health care workers, traditional practitioners and rural origins [46, 61].

The better the health agency *personnel system* is able to organize the roles of PHC workers, respond to their personal needs, and to provide appropriate incentives for job performance [38, 40, 66].

The more *training programs* are designed to impart basic skills, are conducted at regular intervals at fixed rural sites, and contain clearly defined objectives [57, 83].

The greater is the linkage of *medical training and*

practice with PHC activities, and the greater is the promotion of this linkage by national regulations and manpower strategies [58, 71].

The greater is agency capacity for the training of local management [51, 63].

(4) Demonstration projects and other *pilot activities* have played an important part in the development of knowledge and experience regarding PHC. Their contribution in these areas is likely to be greater:

The greater is the *scope* and the longer is the *duration* of relevant projects [43, 46].

The greater is *government interest* in program outcomes, the stronger is government commitment to large-scale implementation of PHC, and the greater is government participation in the pilot activity operations and financing [72, 84].

The closer is the relation of project designs to *policy strategies*, the clearer are project *goals and objectives*, and the stronger are project monitoring and evaluation components [42, 44].

The greater is the *replicability* of pilot designs, in terms of cost, resource mix, organization and related factors [43, 72, 84].

(5) In addition, aspects of *administrative structure*—particularly the decentralization and integration of PHC activities—are likely to influence the success of PHC programs. *Decentralization* of PHC decisionmaking and operations may lead to more effective implementation:

The *more consistent* are patterns of decentralization among the political system, the health ministry, and PHC implementing units [29, 81].

The *less fragmented* are political and administrative responsibility and authority [41, 68, 85].

The *integration* of PHC with other activities, both within the health sector and with other, related sectors may improve program effectiveness:

The more the activities of an integrated approach to PHC are assigned to a *single agency or authority* [35, 45, 68].

The lower is the *administrative level* of the functions to be coordinated, given the presence of adequate administrative capacity [35, 38, 43].

The better defined are the *functions to be coordinated*, and the more consistent they are with the capacity of implementing organizations and staff [45, 86].

(C) Service delivery

During the delivery of PHC services, various characteristics of local communities are seen to influence the effectiveness of program operation. Among the indicators of successful PHC service delivery are: (a) high rates of utilization of PHC services by the target population; and (b) the presence of community support for PHC activities.

(1) *Community-level political characteristics* determine in large measure the extent to which PHC program efforts are able to reach their intended beneficiaries, and to promote and make use of local participation in PHC activities. Programs are likely to be more effective in these respects:

The more equitable is the *distribution of economic and political resources* at the local level, and the more

open and representative are local governmental structures [54, 87].

The greater is the *social, ethnic and political homogeneity* of the population in the community, and the stronger are *cultural values* favoring communal activity and cooperation [17, 34, 44].

The fewer are the *ideological, social and cultural barriers* between the government and the PHC target group, and the greater is national political support for community participation [54, 64].

The more available are avenues for *channeling participation* through existing local organizations [35, 55, 57].

The greater is the presence of *other government programs* in rural areas, and the more successful has been their experience with community involvement [15, 56].

(2) *Existing local health services*, including both traditional and modern modes of care, are seen to influence the demand for PHC and the range of necessary PHC services. PHC appears to be more effective:

The lower is the supply and utilization of *traditional medical practitioners*, and the less rigid are belief systems surrounding traditional practice [35, 46, 61].

The less exposed are local populations to modern medicine, and the lower is the supply of *private physicians* in rural areas [87, 88].

The lower is the *cost* of PHC services (although it is argued that they should not be free), relative to the costs of other available health care [47, 57].

The stronger is the country's health care *referral network* and the greater is population access to higher-level facilities [58, 73].

(3) Finally, the *resource requirements* of PHC programs, in relation to the availability of resources within the health agency and in the community, help to shape the program strategies that are followed. PHC programs are expected to be more effective:

The better is the *physical accessibility* of the target population to services, and the lower are program requirements for transport [45, 63].

The more reliable are lines of *supply* for drugs and equipment to community sites, and the greater is the capacity of the health agency to manage PHC activities locally [7, 46].

The greater are the *physical, financial and human resources* at the community level [6, 55].

Where there are few resources in the health agency and greater resources in the community, programs will be more effective when built around *local participation* and contributions [35, 40].

Where local resources are weak relative to agency capacity, PHC will be more successful when supported by *local resource development* over the long term, with less reliance on local contributions for recurrent budgetary support [35, 40].

These hypotheses offer a basis for empirical research on the political and administrative dynamics of PHC. However, although they have been identified in the literature, few have been subject to rigorous empirical testing. It is hoped that this selection will encourage the more explicit application of analytical methods in this important area.

RESEARCH ISSUES

The testing of hypotheses such as those proposed above clearly raises a number of methodological concerns. Problems associated with such investigation have been addressed in the literature of comparative policy research generally [89, 90], as well as in that focusing on empirical analysis in the health sector [91-94]. For the types of research that we have discussed, three major issues stand out: (1) the interpretation of relationships between policy variables in the model; (2) the collection of data for identified indicators; and (3) the selection of cases and analytical methods to be used.

(1) The model that has been introduced points to two broad classes of relationships which bear on PHC effectiveness. Initially there are contextual linkages, between political factors and policy adoption, between administrative factors and program administration and between community-level factors and the delivery of services. The second type of relationship is sequential, between the processes or stages of policy formulation, administration and service delivery. Based on an examination of these latter dynamics we may arrive at a better understanding of how one stage may condition the activities that take place in the others.

(2) Data availability is a predominant and often neglected concern in the design of health policy research. Variables may be identified so as to allow the relatively direct collection of relevant data, but necessary information is typically not accessible for many specific countries or time periods. Such limitations will require the selective adoption of indicators and the identification of alternative measures for which data can be obtained [95]. Depending on the needs of particular studies, different types of sources of data may be considered:

Aggregate Statistics, of broad country characteristics;

General Country Descriptions, providing more detailed national background;

Planning Documents, from national agencies, particularly the health ministry and from international organizations;

Budget Materials, relating to expenditure for health care and PHC programs;

Program Reports, regularly collected on PHC activities;

Evaluation Studies, and other formal analyses of PHC programs;

Secondary Analysis, based on academic research, consultant missions and other primary sources; and

Interviews and Surveys, and other primary materials, chiefly collected onsite.

It is likely that any given research effort will call for the exploration of a variety of these categories.

(3) There are three distinct methodological approaches to the cross-national study of health policies, including those for PHC, which differ according to their level of analysis, the nature of the findings that are generated and their requirements for data. The first and most broad of these is *aggregate statistical analysis* across a relatively large sample of countries. Aggregate methods for cross-national re-

search of social and political hypotheses have been used in the social science literature for some time. Although most studies in this field have tended to focus on limited macro-level topics, significant aggregate studies on socio-economic development processes have been conducted on more micro-level issues [96]. Aggregate research on comparative administration and development assistance programs is not so well advanced, due chiefly to a lack of consensus about the scope and objectives of study [12, 17] and to the unavailability of complete data corresponding to the research frameworks that have been proposed. Reliance on broad social and political indicators usually does not allow sufficient precision to provide consistently meaningful findings about individual country health systems, although some studies have incorporated such variables along with 'process' indicators to yield certain significant results [69, 78]. Aggregate analysis also faces inherent statistical problems related to multiple causation and conditionality of outcomes, which restrict the applicability of standard regression techniques.

A second approach to analysis is the *comparison of two or more country cases*, using points of relative similarity and difference as a basis for explaining differences in process or performance. Most of this research has focused on Western Europe and the United States, although some attention has been given to empirical comparisons between developing countries. Among these latter studies are, for example, discussions of the transferability of health service models from one setting to another [87], paired country examinations [81] and broader analyses of PHC policymaking across multiple countries [35, 68].

Comparative studies require relatively more detailed information than do aggregate analysis. In addition, the available literature has not resolved issues concerning the reliability of conclusions reached by different types of comparisons: debate continues over the relative usefulness of 'contrasting' as opposed to 'similar' case studies for the drawing of cross-national generalizations [97]. On the one hand, comparisons of widely diverse countries may fail to yield meaningful findings about the actual dynamics of health system performance. On the other hand, the comparison of logically grouped, similar countries limits the potential for widely generalizable results.

The third and most common approach to the examination of health systems is that of *single case studies*. Case studies are particularly vulnerable to limitations on their generalizability; indeed, the findings of such analyses are often extended by their authors with little supporting argument. Yet, as Eckstein observes, a properly designed case study may serve a number of useful purposes, especially through the testing of micro-level hypotheses in 'crucial' settings [98]. Their chief advantage lies in the potential for providing a rich and detailed analysis of complex interrelationships. They may in fact be the most appropriate approach for the types of research discussed here, especially for the examination of administrative and community-level hypotheses.

This survey of political and administrative issues has focused systematically on the different contexts in which policies for Primary Health Care are formulated and implemented. Through a review of the

literature on PHC, we have attempted to organize the major strands of empirical knowledge in this area within a general model, and to make use of this model to develop hypotheses for future study and practical application. We have found that few of the hypothesized relationships are strongly supported by available findings. Most of the relationships proposed are likely to be influenced by a wide range of contextual factors, which must be identified and taken into account by analysts. Considerable further research is needed to explore and more fully document the complexities of the health policy process, we have set out a possible agenda for that task.

REFERENCES

- King M. H. *Medical Care in Developing Countries*. Oxford University Press, Nairobi, 1966.
- Bryant J. H. *Health in the Developing World*. Cornell University Press, Ithaca, NY, 1969.
- Djukanovic V. and Mach E. *Alternative Approaches to Meeting Basic Health Needs in Developing Countries*. World Health Organization, Geneva, 1975.
- World Health Organization and UNICEF. *Primary Health Care*. WHO, Geneva, 1978.
- Gwatkin D. R. et al. *Can Health and Nutrition Interventions Make a Difference?* Monograph No. 13. Overseas Development Council, Washington, DC, 1980.
- Golladay F. and Liese B. *Health Problems and Policies in the Developing Countries*. Staff Working Paper No. 412. World Bank, Washington, DC, 1980.
- Evans J. R. et al. Health care in the developing world: problems of scarcity and choice. *Nov Lamb. J. Med.* 305, 1117, 1981.
- World Health Organization. *Review of Primary Health Care Development*. Document SHS 823. WHO, Geneva, 1981.
- World Health Organization. *Financing of Health Services*. Technical Report Series No. 625. WHO, Geneva, 1978.
- Zschock D. K. *Health Care Financing in Developing Countries*. Monograph Series No. 1. International Health Programs. American Public Health Association, Washington, DC, 1979.
- Bossert T. J. Foreign assistance implementation strategies for primary health care policies: issues and lessons from Central America. Paper presented at *Latin American Studies Association Meeting*, 1982.
- Montgomery J. D. Population policies as social experiments. In *Patterns of Policy: Comparative and Longitudinal Studies on Population Events* (Edited by Montgomery J. D. et al.) Transaction Books, New Brunswick, NJ, 1979.
- Van Meter D. S. and Van Horn C. E. The policy implementation process: a conceptual framework. *Adm. Soc.* 6, 445, 1975.
- Korten D. C. Managing the implementation process in the national population program: an overview. In *Developing Program Implementing Capabilities in Population Organizations*. ICOMP, Manila, 1976.
- Grindle M. S. Policy content and context in implementation. In *Politics and Policy Implementation in the Third World* (Edited by Grindle M. S.) Princeton University Press, Princeton, 1980.
- The literature on health sector program integration is extensive. See, for example, Family Health Care. Planning for health and development: a strategic perspective for technical cooperation. Report prepared for USAID, Family Health Care, Washington, DC, 1979.
- Uphoff N. T. Political considerations in human development. In *Implementing Programs of Human Development* (Edited by Knight P. T.) Staff Working Paper No. 403. World Bank, Washington, DC, 1980.
- The continuity between technical and political considerations at all stages of the policy process is perhaps most clearly evident in the difficulty of classifying planning activities within a simple model. Although the specification varies among analysts, in general 'planning' encompasses the formulation of strategies, the development of programs, and the modification of programs over time. See Altenstetter C. and Bjorkman J. W. Planning and implementation: a comparative perspective on health policy. *Int. Polit. Sci. Rev.* 2, 11, 1981.
- Clinton R. L. and Godwin R. K. Latin America case studies: linkage between political commitment, administrative capability, and the effectiveness of family planning programs. In *Family Planning Program Effectiveness: Report of a Workshop*. Program Evaluation Report No. 1. USAID, Washington, DC, 1979.
- Hadden S. G. Controlled decentralization and policy implementation: the case of rural electrification in Rajasthan. In *Politics and Policy Implementation in the Third World* (Edited by Grindle M. S.). Princeton University Press, Princeton, NJ, 1980.
- Ayres R. L. Political regimes, explanatory variables, and public policy in Latin America. *J. Dev. Areas* 10, 15, 1975.
- Leichter H. M. Political change and polity change: the case of two Philippine cities. *J. Dev. Areas* 10, 83, 1975.
- There is, for instance, a substantial literature on health policy in Cuba, Tanzania, the People's Republic of China and other socialist countries. A number of papers taking Marxist viewpoints are collected in Ingman S. R. and Thomas A. E. (Eds) *Topias and Utopias in Health: Policy Studies*. Mouton, The Hague, 1975.
- Cole-King S. Primary health care and the role of foreign aid. In *Two Papers on Health Aid*. IDS Communication 123. Institute of Development Studies, University of Sussex, Brighton, 1979.
- McCoy T. L. (Ed.) *The Dynamics of Population Policy in Latin America*. Ballinger, Cambridge, MA, 1974.
- Godwin R. K. (Ed.) *Comparative Policy Analysis: The Study of Population Policy Determinants in Developing Countries*. Lexington Books, Lexington, MA, 1975.
- Montgomery J. D. et al. (Eds) *Patterns of Policy: Comparative and Longitudinal Studies on Population Events*. Transaction Books, New Brunswick, NJ, 1979.
- See, for example, the collection of regional reviews in U.S. Agency for International Development. *Family Planning Program Effectiveness: Report of a Workshop*. Program Evaluation Report No. 1. USAID, Washington, DC, 1979.
- Altenstetter C. (Ed.) The impact of organizational arrangements on policy performance. In *Changing National-Subnational Relations in Health: Opportunities and Constraints*. Fogarty Center, National Institutes of Health, Washington, DC, 1978.
- Leichter H. M. *A Comparative Approach to Policy Analysis: Health Care Policy in Four Nations*. Cambridge University Press, Cambridge, MA, 1979.
- Marmor T. R. and Bridges A. American health planning and the lessons of comparative policy analysis. *J. Hlth Polit. Policy Law* 5, 419, 1980.
- Litman T. J. and Robins L. Comparative analysis of health care systems: a socio-political approach. *Soc. Sci. Med.* 5, 573, 1971.
- Elling R. H. and Kerr H. Selection of contrasting national health systems for in-depth study. *Inquiry* 12, 2, Suppl., 25, 1975.
- Elling R. H. *Cross-National Study of Health Systems: Political Economics and Health Care*. Transaction Books, New Brunswick, NJ, 1980.
- UNICEF-WHO Joint Committee on Health Policy.

- National Decision-Making for Primary Health Care*. World Health Organization, Geneva, 1981.
36. Cleaves P. S. *Bureaucratic Politics and Administration in Chile*. University of California Press, Berkeley, CA, 1974.
 37. Ingie M. D. Implementing development programs: a state-of-the-art review. Report prepared for USAID, Washington, DC, 1979.
 38. Honadie G. *et al.* Integrated rural development: making it work? Report prepared for USAID. Development Alternatives, Washington, DC, 1980.
 39. Knight P. T. (Ed.) *Implementing Programs of Human Development*. Staff Working Paper No. 403. World Bank, Washington, DC, 1980.
 40. Esman M. J. and Montgomery J. D. The administration of human development. In *Implementing Programs of Human Development* (Edited by Knight P. T.). Staff Working Paper No. 403. World Bank, Washington, DC, 1980.
 41. Lindenberg M. and Crosby B. *Managing Development. The Political Dimension*. Transaction Books, New Brunswick, NJ, 1981.
 42. American Public Health Association. *The State of the Art of Delivering Low Cost Health Services in Developing Countries. A Summary Study Of 180 Health Projects*. APHA, Washington, DC, January 1977.
 43. Baumsting N. *et al.* *AID Integrated Low Cost Health Projects*. Office of International Health, USDHEW, Rockville, MD, 1978.
 44. Indian Council of Medical Research. Alternative approaches to health care. Report of the National Symposium on Alternative Approaches to Health Care. Hyderabad, India. ICMR, New Delhi, 1976.
 45. Brinkerhoff D. W. Realities in implementing decentralization, coordination and participation: the case of the Maif rural health project. Development Discussion Paper No. 105. Harvard Institute for International Development, Cambridge MA, 1980.
 46. O'Connor R. W. *Managing Health Systems in Developing Areas. Experiences from Afghanistan*. Lexington Books, Lexington, MA, 1980.
 47. Over A. M. Five primary care projects in the Sahel and the issue of recurrent costs. Report prepared for USAID. Harvard Institute for International Development, Cambridge, MA, 1980.
 48. Winkoff B. (Ed.) *Nutrition and National Policy*. MIT Press, Cambridge, MA, 1978.
 49. Austin J. E. *et al.* Integrated nutrition and primary health care programs. Study VII of *Nutrition Intervention in Developing Countries*. Oegleschlager, Gunn & Hain, Cambridge, MA, 1981.
 50. Saunders R. J. and Warford J. J. *Village Water Supply*. Johns Hopkins University Press, Baltimore, MD, 1976.
 51. Ugalde A. and Emrey R. Political and organizational issues in assessing health and nutritional interventions. In *Evaluating the Impact of Nutrition and Health Programs* (Edited by Klein R. E. *et al.*). Plenum Press, New York, 1979.
 52. The IRD literature thus spans both our 'policy' and 'program' categories. See, for instance, Lele U. *The Design of Rural Development: Lessons from Africa*. Johns Hopkins University Press, Baltimore, MD, 1975.
 53. McMahon R. *et al.* *On Being in Charge: A Guide for Middle-Level Management in Primary Health Care*. World Health Organization, Geneva, 1980.
 54. Cohen J. M. and Uphoff N. T. *Rural Development Participation: Concepts and Measures for Project Design, Implementation and Evaluation*. Rural Development Monograph No. 2. Center for International Studies, Cornell University, Ithaca, NY, 1977.
 55. UNICEF-WHO Joint Committee on Health Policy. *Community Involvement in Primary Health Care: A Study of the Process of Community Motivation and Continued Participation*. World Health Organization, Geneva, 1977.
 56. Van Wijk-Sabesma C. *Participation and Education in Community Water Supply and Sanitation Programs: A Literature Review*. WHO International Reference Centre for Community Water Supply, The Hague, 1979.
 57. Esman M. J. *et al.* *Paraprofessionals in Rural Development*. Special Series on Paraprofessionals No. 1. Center for International Studies, Cornell University, Ithaca, NY, 1980.
 58. The most fully developed model of this category of health worker is the MEDEX, as described in Smith R. A. *Manpower and Primary Health Care: Guidelines for Improving Expanding Health Coverage in Developing Countries*. University of Hawaii Press, Honolulu, 1978.
 59. Dunlop D. W. Alternatives to 'modern' health delivery systems in Africa: public policy issues of traditional health systems. *Soc. Sci. Med.* 9, 581, 1975.
 60. Taylor C. E. The place of indigenous medical practitioners in the modernization of health services. In *Asian Medical Systems: A Comparative Study* (Edited by Leslie C.). University of California Press, Berkeley, CA, 1976.
 61. Good C. M. *et al.* The interface of dual systems of health care in the developing world: toward health policy initiatives in Africa. *Soc. Sci. Med.* 13D, 141, 1979.
 62. Representative references are cited for each of these hypotheses. Fuller discussions are presented in Bossert T. J. and Parker D. A. The politics and administration of primary health care: a literature review and research strategy. Report prepared for USAID, Department of Community and Family Medicine, Dartmouth Medical School, 1982.
 63. Gish O. Resource allocation, equality of access, and health. *Int. J. Hlth Serv.* 3, 399, 1973.
 64. de Kadt F. Ideology, social policy, health and health services: a field of complex interactions. *Soc. Sci. Med.* 16, 741, 1982.
 65. Field J. O. The importance of context: nutrition planning and development reconsidered. *Nutrition in the Community* (Edited by McLaren D. S.). 2nd Edition. Wiley, Chichester, 1981.
 66. Cleaves P. S. Implementation amidst scarcity and apathy: political power and policy design. In *Politics and Policy Implementation in the Third World* (Edited by Grindle M. S.). Princeton University Press, Princeton, NJ, 1980.
 67. Heiby J. R. Low-cost health delivery systems: lessons from Nicaragua. *Am. J. publ. Hlth* 71, 514, 1981.
 68. Bossert T. J. Can we return to the regime for comparative policy analysis? or the state and health policy in Central America. *Comp. Pol.* 15, 419, 1983.
 69. Haignere C. S. The political and economic etiology of national health status. Unpublished Master's degree thesis. University of Denver, 1980.
 70. Ugalde A. The role of the medical profession in public health policy making: the case of Colombia. *Soc. Sci. Med.* 13C, 109, 1979.
 71. Joseph S. C. Innovation and constraints in health manpower policy: a case history of medical education development in Cameroun. *Soc. Sci. Med.* 13C, 137, 1979.
 72. Joseph S. C. and Russell S. S. Is primary care the wave of the future? *Soc. Sci. Med.* 14C, 137, 1980.
 73. Roemer M. I. *Health Care Systems in World Perspective*. Health Administration Press, Ann Arbor, MI, 1976.
 74. Breindel C. L. Health planning in Egypt: three emergent themes. Paper presented at *American Public Health Association Meeting*, 1980.
 75. Mott B. J. F. Politics and international planning. *Soc. Sci. Med.* 8, 271, 1974.

76. Clinton J. J. *Health, Population and Nutrition Systems in LDC's. A Handbook*. Family Health Care, Washington, DC, 1979.
77. Janovsky G. K. Planning as organizational transaction and bargaining: the case of health in Kenya. Unpublished Ed. D. dissertation, Harvard University, 1979.
78. Caldwell H. R. and Dunlop D. W. An empirical study of health planning in Latin America and Africa. *Soc. Sci. Med.* 13C, 75, 1979.
79. Pan American Health Organization and USDHEW. Health planning: an international view. Report of a Workshop held in Copenhagen, Denmark. PAHO, Washington, DC, 1978.
80. Howard L. *A New Look at Development Cooperation for Health*. World Health Organization, Geneva, 1981.
81. Ugalde A. Health decision making in developing nations: a comparative analysis of Columbia and Iran. *Soc. Sci. Med.* 12, 1, 1978.
82. Caden N. and Wildavsky A. *Planning and Budgeting in Poor Countries*. Wiley, New York, 1974.
83. World Health Organization. *The Primary Health Worker: Working Guide—Guidelines for Training, Guidelines for Adaptation*. WHO, Geneva, 1976.
84. Pyle D. F. From pilot project to operational program in India: the problems of transition. *Politics and Policy Implementation in the Third World* (Edited by Grindle M. S.). Princeton University Press, Princeton, NJ, 1980.
85. Bjorkman J. W. The governance of the health sector: issues of participation, representation, and decentralization in comparative perspective. Discussion Paper No. 79-79. International Institutes of Management, Berlin, 1979.
86. Johnston B. F. and Meyer A. J. Nutrition, health and population in strategies for rural development. *Econ. Dev. Cult. Change* 25, 1, 1977.
87. Ronaghy H. A. and Solter S. Is the Chinese 'barefoot doctor' exportable to rural Iran? *Lancet* 29, 1331, June 1974.
88. Foster G. M. Medical anthropology and international health planning. *Soc. Sci. Med.* 11, 527, 1977.
89. Holt R. T. and Turner J. E. (Eds) *The Methodology of Comparative Research*. Free Press, New York, 1970.
90. Berting J. et al. (Eds) *Problems in International Comparative Research in the Social Sciences*. Pergamon Press, Oxford, 1979.
91. Wienerman E. R. Research on comparative health service systems. *Med. Care* 9, 272, 1971.
92. DeMiguel J. M. A framework for the study of national health systems. *Inquiry* 12, 2, Suppl., 10, 1975.
93. Pilarz M. and Schach E. (Eds) *Cross-National Socio-medical Research: Concepts, Methods, Practice*. George Thieme, Stuttgart, 1976.
94. Elling R. H. *Cross-National Study of Health Systems: Concepts, Methods and Data Sources*. Gale Research, Detroit, MI, 1980.
95. National Council on International Health. *International Health: Measuring Progress*. NCIH, Washington, DC, 1986.
96. Adelman I. and Morris C. T. *Economic Growth and Social Equity in Developing Countries*. Stanford University Press, Stanford, CA, 1973.
97. Teune H. A logic of comparative policy analysis. In *Comparing Public Policies: New Concepts and Methods* (Edited by Ashford D. E.). Sage, Beverly Hills, CA, 1978.
98. Eckstein H. Case study and theory in political science. In *Handbook of Political Science* (Edited by Greenstein F. I. and Polsby N. W.). Vol. 7. Addison-Wesley, Reading, MA, 1975.