

Primary Health Care
in Political and Administrative Context:
A Literature Review and Research Design

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March 1982

Contract No.: AIE/DSPE-C-0086

Project No.: 931-0003

This project has been funded by the Office of Health, Development Support Bureau, U.S. Agency for International Development, under Contract No. DSPE-C-0086. Four major objectives have guided this project:

1. To provide a state-of-the-art review of the literature on political and administrative factors in primary health care (PHC) policies and programs;
2. Based on this review, to generate hypotheses relating political and administrative variables to the success of PHC efforts;
3. To suggest practical policy guidelines based on state-of-the-art knowledge; and
4. To examine appropriate research methodologies and propose an agenda for future research on political and administrative elements in PHC policy success.

Special thanks go to David Dunlop, who as Project Officer encouraged and supported the authors over the course of this review. Comments and suggestions from Robert Berg, Barbara Pillsbury, and other U.S.A.I.D. staff were particularly helpful, as were discussions with John D. Montgomery, Joe D. Wray, James Austin, Dierdre Strachan, John Field, John Wyon, and numerous other individuals. However, the conclusions of this report are solely those of the authors, and do not represent the views of A.I.D. or of any other agency of the U.S. government.

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EXECUTIVE SUMMARY

Officials responsible for Primary Health Care (PHC) projects are increasingly aware that political and administrative factors may be as important in determining the successful implementation as are the technical health and medical components of these activities. While practitioners appear to be aware of these constraints, our knowledge of specific relationships is extremely weak and fragmented.

This report is an initial attempt to review the existing literature, and to develop an overall analytical framework for organizing this literature and for identifying gaps in our knowledge. This exercise is designed to build on available knowledge to generate a systematic series of hypotheses which relate health policy outcomes to a variety of political and administrative factors and constraints. These hypotheses specify the relationships which need to be examined empirically in order to determine how and in what ways political and administrative variables influence PHC programs. As such, they set an agenda for research to expand our understanding of this crucial but little-understood area of policymaking.

The model that is proposed describes constraints of political and administrative structure and bargaining as they impinge on three stages of the policy process:

1. the decision of a national government to adopt and commit

significant resources to PHC policies

2. the involvement and characteristics of government organizations (administration) in the process of implementing the policy decision

and

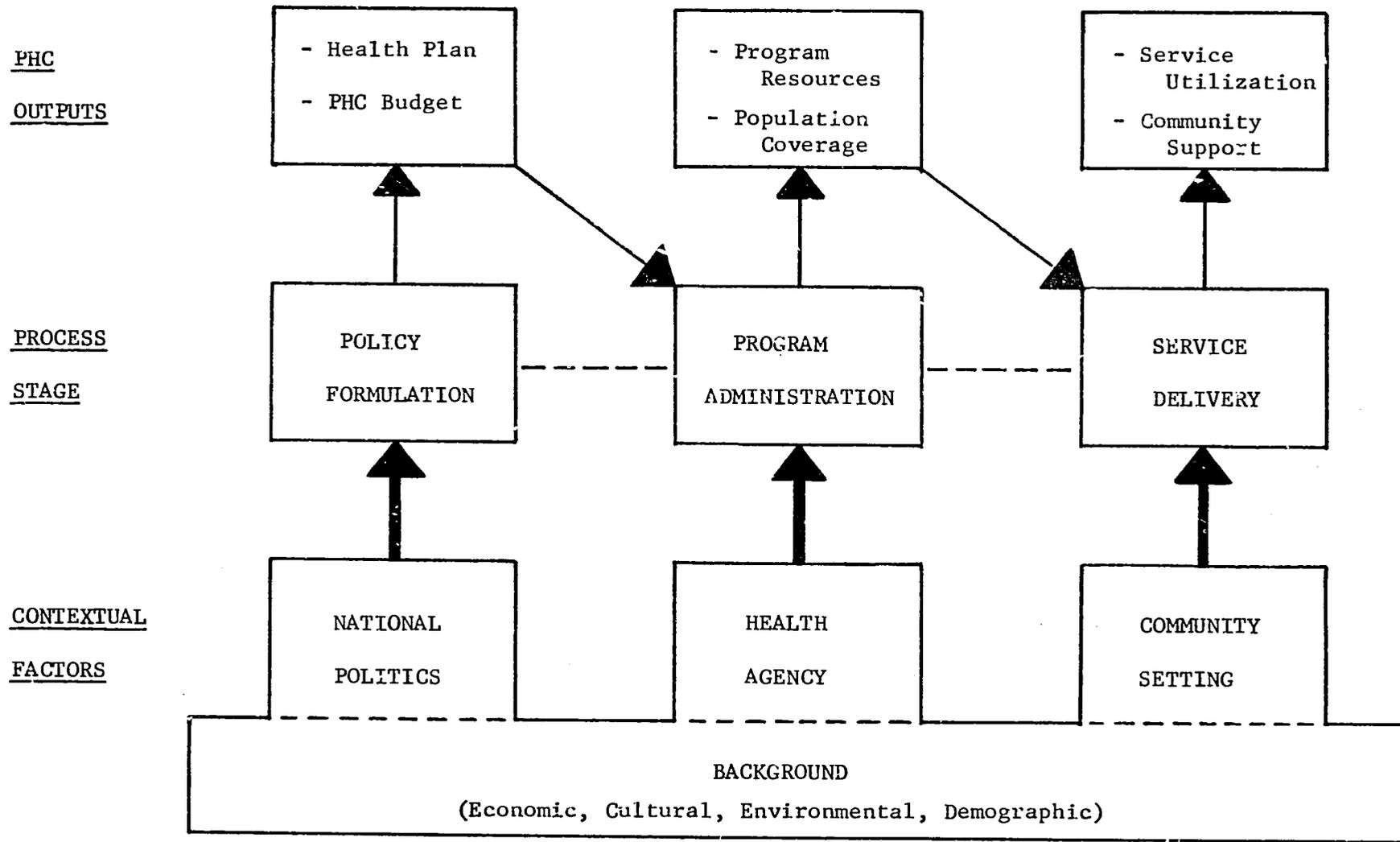
3. the actual delivery of PHC services at the community level.
- The interaction of these stages, and their relationship to the respective contexts of PHC policy formulation and implementation and to measures of PHC "output," are shown in Figure 1.

In the first of these stages, the ideology and structural characteristics of elites and regimes, as well as the broad bargaining power of potential beneficiaries, physicians, and other groups that compete for scarce national resources, help to determine whether or not a given regime will make a commitment to adopt PHC policy. The national health planning process also influences the orientation and scope of PHC strategies selected. In addition, foreign actors, including international organizations and donor agencies, further shape the formulation and implementation of PHC policies. Among the areas selected for continuing investigation at this stage are the tentative conclusions that:

* "Reformist" regimes are more likely to adopt PHC than are "status quo" regimes.

* Political instability may provide a "window of opportunity" for the adoption of PHC programs.

Figure 1
THE PHC POLICY PROCESS



- * Strong, reformist regimes are less likely to require long-term external support for PHC than are weak, status quo regimes.
- * PHC is more likely to be adopted under regimes in which potential beneficiaries and health-related agencies have greater bargaining power, vis a vis physicians and other competitors for a share of the national budget.
- * The greater are country efforts in health planning, the more likely it is will be adopted and effectively implemented.

In the administrative implementation stage, the development of commitment to PHC goals and the improvement of a variety of administrative processes are found to have implications for the successful delivery of services. Important factors here include procedures for recruitment and training of PHC workers, the conduct of pilot activities for PHC, and aspects of administrative structure--particularly the degree of decentralization and integration of PHC functions. Promising relationships regarding administrative constraints on PHC implementation suggest that implementation is more effective if:

- * Commitment to PHC goals is evident at all levels of the responsible implementing agency, and especially where non-physicians hold key policymaking positions.
- * Administrative responsibility for curative health services is divorced from PHC administration.
- * Efforts are made to improve administrative skills at all levels.

* Recruitment and training programs emphasize rural origins, appropriate incentive structures, and rurally-based, team-oriented processes.

* Administrative structures are decentralized--under conditions where other government institutions are also decentralized, where horizontal responsibilities are not fragmented, and where Administrative capacity is already present at regional and local levels.

In the final stage, community-level political characteristics determine in large measure the extent to which PHC program efforts are able to reach their intended beneficiaries, as well as the degree of local participation in PHC activities. Existing health services in the community, including both traditional and modern modes of care, will influence the demand for PHC and the range of necessary PHC services. Finally, the resource requirements of PHC programs, in relation to the availability of resources within the health agency and the community, help to shape the program strategies that are followed. The following are among the most important factors affecting the success of PHC service delivery in the community:

* The more equitable is the distribution of economic and political resources in the community.

* The fewer social cleavages there are along ethnic, religious, or political lines.

- * The more avenues are present for channeling community participation in PHC.
- * The smaller is the supply of non-PHC health services in the local area, and the lower are the costs to the community of PHC care relative to the costs of other services.
- * The stronger is the country's health service referral network, within which PHC forms the first point of contact with the beneficiary population.
- * The greater is the availability of financial and other program resources within the health agency and the community.

Of particular importance in future research will be the determination of the relative importance of each of the above relationships. Such knowledge would assist policymakers in targeting activities toward relieving the most powerful constraints on PHC adoption and implementation, and toward maximizing advantages in situations without major constraints.

The existing literature is not so underdeveloped as to preclude the drawing of some relevant policy conclusions of immediate use to USAID decisionmakers. Although this review finds little conclusive evidence of strong relationships, we are nevertheless able, on the basis of the hypotheses that are set out, to suggest a variety of policy guidelines that might inform policymakers until firmer evidence is obtained through further research.

Finally, this report points to two avenues of research that AID can pursue with limited budgetary resources. One of these would incorporate the collection of simple data on political and administrative variables into project review and evaluation processes. This data would form the basis for ongoing, aggregate testing of many of the hypotheses that are set out in this study. The second strategy would focus on a cluster of "similar" country case studies for in-depth examination, focusing especially on administrative and community-level constraints on policy implementation.

In conclusion, this project has reviewed the state-of-the-art of our knowledge about the influences of political and administrative contexts on PHC "success;" it has established some general "rules of thumb" based on current knowledge; and it has proposed a conceptual framework and research design for improving our understanding in this area.

I. THE STUDY OF PHC POLICIES AND PROGRAMS

A. Introduction

Over the past decade, the strategy of primary health care (PHC) has been increasingly institutionalized in Third World countries. PHC provides essential health services to dispersed rural populations, where many forms of health care, particularly government-sponsored programs, are not regularly available. The means of extending these services has been chiefly through the expanded use of paraprofessional workers and the promotion of local participation in service delivery. This experience has led to substantial improvement in the technical capability to develop PHC resources (e.g., training programs, manuals, task definition, etc.) and to respond to rural health needs.

Despite the generation of considerable practical knowledge about technical aspects, the performance of PHC programs has been predictably quite varied. Many reports, publications, and other documents reveal that not only the design of PHC efforts, but also the ability to implement them, are highly specific to the particular country or regional location in which they are conducted. A growing literature demonstrates that the PHC context--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--exerts important influences on program outcomes. At the extreme, these influences may be so strong as to severely restrict the successful performance of PHC programs that appear to be well designed from a technical perspective.

It is apparent that there remains considerable scope for improving program performance through a better understanding of the structures and processes which form the context of PHC policy. It is toward this goal of understanding the context and dynamics of PHC policy that this report is addressed, with the further objective of using the resulting knowledge as a guide to the improvement of PHC operations. This project focuses on the relationship of the technical content of PHC programs to the various contexts, particularly political and administrative, in which they take place.

This study has been constrained by the relative lack of attention that this relationship has received in the health policy literature. Many evaluation studies of PHC programs have been undertaken, but, as will be described, these efforts have rarely

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addressed contextual constraints in a systematic or comprehensive fashion. More commonly, knowledge about PHC has been built up through informal processes, including anecdotes and the unsystematic use of case studies. Case studies are indeed useful for many purposes, in PHC as well as in related program areas such as population, nutrition, and agricultural development, but they offer only a narrow basis upon which to draw generalizations about program dynamics. We have come to recognize that a multiplicity of factors are important to program success, but case studies alone do not permit an examination of the relative importance and interrelationship of these factors, nor of the conditions under which they have influence in different settings. A principal feature of the present analysis is that it is explicitly comparative in emphasis.

As a result of much previous work, there is a widespread perception that, because of the great diversity of PHC program designs and settings, there can be no systematic relationship between contextual settings and program performance. This view is reinforced by longstanding "rules of thumb": that the critical aspects of PHC are those that fall within the traditional province of the medical profession; that there remains an unbridgeable distinction between 'technical' and 'political' issues; and that politics ought not to be the concern of health professionals. These beliefs are clearly inappropriate, in light of extensive research findings from the United States and Western Europe which show the close interrelationship between health care and 'health politics': technical success is very dependent upon political understanding.

A second objection that may be raised to the approach suggested here is that relationships involving political and administrative factors may be open to study in the developed countries, where there is a certain regularity and openness in these areas, but similar study is not possible in the developing world. This view is grounded in a perception that the Third World environment is unpredictable and fundamentally arbitrary, or at the very least not amenable to systematic social research. However, many studies conducted in recent years has demonstrated the potential for political and administrative analysis in the developing world. There is, furthermore, a perception among many observers that some aspects of political systems and administrative processes are becoming increasingly similar across countries, providing more common ground for research. While it is apparent that our understanding of policy processes--including those in the health sector--is deficient in many respects, knowledge in this area has grown substantially.

The most serious objection to our approach suggests that, even if we can in fact determine the ways in which PHC programs operate, this knowledge cannot make a significant difference in

program performance. This argument finds the political and administrative resistance to change in many programs, particularly in the health sector, effectively immune to outside intervention. While we recognize that some features of the policy process are indeed likely to be fixed, others have proved to be open to manipulation by policy advocates, or by the introduction of PHC priorities, in many countries. As a means of appraising the effects of new policy options, for example, comparative policy analysis helps to identify the ways in which different types of institutional structure shape the process of policy implementation. In health care, as in other fields, knowledge of likely constraints helps to determine what is inflexible in a given setting, and what changes are in fact possible.

This report, then, is an effort to build on our knowledge in health care, as well as in other development sectors, and to undertake a systematic examination of the relationships between the setting, process, and performance of PHC programs. On this basis, we may identify areas of particular constraint on PHC activities, and suggest possible means for the improvement of program operations. This project is guided by four central questions:

1. What framework of analysis will allow us to examine the most relevant political and administrative relationships affecting the adoption and implementation of PHC?
2. What does the available literature suggest as the most critical of these relationships?
3. How may these relationships be examined empirically?
4. What are the immediate and long-term implications of this research for PHC policymaking and program support?

This report is organized to address these four questions in turn. The first chapter proposes a general model of the PHC policy and program process, using this model to organize the PHC literature and to set out a general strategy for research. Chapter Two draws from the literature of published and available unpublished materials to develop a series of hypotheses concerning the relationship of various contextual factors to the formulation of PHC policy and to the administration and operations of PHC programs. Chapter Three examines issues in the methodology for testing these hypotheses. The final chapter outlines a set of recommendations for further research in this area.

B. Primary Health Care

1. The PHC Strategy

The term, "primary health care," is used to refer to national health services extended chiefly to poor or disadvantaged rural populations in developing countries. In response to the typical maldistribution of health care resources in the developing world, which has favored urban and upper-income sectors, PHC was the result of a search for an alternative means of providing health care to rural areas which had often been left severely underserved. (1) An element of "Basic Needs" strategies for socioeconomic development, PHC involves the allocation of resources to low-income, primarily rural segments of the national population. PHC has been promoted internationally by a number of donor agencies and international organizations, including the World Health Organization (WHO), UNICEF, the World Bank and regional banks, the Canadian International Development Agency, and USAID.

The most widely used definition of PHC was developed during the joint WHO/UNICEF Conference on Primary Health Care, in 1978. As set out in the "Declaration of Alma Ata," (WHO, 1978):

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.

Within this comprehensive definition, PHC was identified as having the following principal features (WHO, 1978):

- * It includes promotive, preventive, curative, and rehabilitative services, in addressing the main health problems in the community;

(1) These problems have been widely documented in the literature; see, for example, King (1966), Bryant (1969), Roemer (1976), and Elling (1980a).

- * 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 para-professionals, and is the first stage of a larger system of referral for specialized care.

Attainment of these goals is obviously an ambitious and long-term objective, and it requires considerable alteration of the current health care systems of many, if not 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.(2) One is impressed by the diversity of the PHC process and the difficulties that it raises for program coordination and support. As a recent study has concluded (WHO, 1981:27):

(D)espite an internationally agreed definition, the term 'primary health care' is being applied around the world to a variety of realities and even of concepts. One reason for this may be that international formulations about PHC are necessarily of general character to encompass the world situation and countries have to adapt the general principles of the approach to their specific conditions; this must allow a certain leeway

(2) One important aspect of program design is the degree to which activities carried out in related sectors are integrated with, or are considered a part of, PHC services. For example, most countries conduct programs in the areas of nutrition and family planning, and more conventional health care services such as immunization programs, which were originally motivated by policy concerns different from those of PHC. Administration of these programs is often the responsibility of other government agencies, or of separate divisions within the Ministry of Health. Thus, while these activities fall within the broad definition of PHC, they may be administered separately and often inconsistently with other elements of PHC programs (Family Health Care, 1979).

in interpretation. Nevertheless, the observed variety goes beyond what should be expected from countries' different circumstances... When the term 'primary health care' is used to refer to a wide variety of situations, many substantially different from the content of the agreed definition, confusion must result both within countries and internationally.

In general, PHC has come to be associated with three principal changes in health services: first, the increased use of paraprofessional workers; second, greater 'rationality' in health planning and particularly a wider coverage of services; and third, greater involvement of the local community in health care activities.

The use of paraprofessional workers was seen as a crucial link in breaking the "medical bottleneck" in rural areas. Incorporating local, semi-skilled personnel into the health system as autonomous practitioners was in part an extension of the use of medical auxiliaries, to some extent based on the model of the Chinese barefoot doctor. These new paraprofessionals were considered a practical alternative both to fully trained physicians and to the variety of indigenous practitioners found in most rural areas.

Many of the early writers exploring the PHC approach also focused on health planning as a promising vehicle for incorporating PHC into national health programs. The planning process had been recognized as a critical factor in promoting development strategies in all sectors (Caiden and Wildavsky, 1974). In the health sector, redirection of programs toward underserved rural populations was viewed as a first step in the rationalization of national health goals, and their translation into strategies for action. (3) This attention was more generally expanded by WHO in its support of Country Health Programming. Other agencies, such as USAID, also supported the improvement of health sector planning. (4)

The third central aspect of PHC is the development of mechanisms to involve community participation in health care. Community participation was seen as desirable for a variety of

(3) See, for example, articles by Litsios (1971), Mott (1974), and Elling and Kerr (1975), as well as the documents of WHO and other development agencies.

(4) Much effort during the early 1970's went into national Health Sector Assessments, and other projects including the series of Synchrisis documents, and the DEIDS. The literature on health planning is extensive; useful summaries are found in PAHO/USDHEW (1978) and Family Health Care (1979).

purposes: (1) as an end in itself--to promote a sense of community and self-reliance in rural development; (2) as particularly appropriate to many preventive health activities, directed toward the alleviation of major diseases in rural areas through such activities as sanitation and water supply improvements; and (3) as a means of mobilizing service providers at low cost, in resource-poor situations (Cohen and Uphoff, 1977).

Policies and programs for PHC were developed over the course of the 1970's, consistent with these principles but specific to the situations of individual countries. (5)

2. Technical Evaluation of PHC

In recent years, this growing experience with PHC has been the subject of a number of assessments. These include reviews of the effectiveness of PHC projects (Gwatkin et al., 1980); broader examinations of the potential for expansion of PHC internationally (e.g., Joseph and Russell, 1980); and increasing concern with the financing of PHC (Zschock, 1980; WHO, 1980). It is beyond the scope of this report 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, the 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. (6)

3. The 'Content' of PHC and its Implications

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- (5) The evolution of the PHC strategy may perhaps be most clearly seen in the succession of works published by WHO during the 1970's. Experimental projects emphasizing the role of paraprofessionals and community participation were first highlighted in Health by the People (Newell, 1971). As increasing attention was given to incorporating these and other rural health services innovations into national health programs, issues were presented in Alternative Approaches to Meeting Basic Health Needs in Developing Countries (Djukanovich and Mach, 1975). As described above, the PHC strategy was consolidated at the WHO/UNICEF Conference on Primary Health Care held at Alma Ata in the Soviet Union (WHO, 1978).
- (6) The reader is referred to these and other publications cited in this report for a more detailed perspective on the "technical" effectiveness of PHC.

The foregoing analysis indicates that examination of how PHC programs "work" must take account of the different activities which make up "primary health care", and the implications of those activities for the various settings in which they take place. This relationship suggests a distinction between the political and administrative dimensions of the "content" of PHC, and the "context" of program operations (Grindle, 1980). In other words, there are inherent characteristics of PHC which are different from those of other health and development programs, which make it easier or more difficult to adopt and implement. We may identify a number of features of PHC which bear on the ease of its adoption and implementation. (7)

The literature on human resource programs suggests several features of PHC which are likely to bear favorably on the adoption and implementation process:

- * Relatively simple technology: PHC uses explicitly simple health care techniques, which are suitable for provision by paraprofessionals with limited training.
- * Few capital resource requirements: PHC is highly labor-intensive, with few needs for major start-up expenditures. Economic requirements are thus lessened, and the lack of "visibility" may lower potential political opposition (although it may also limit political support).
- * Difficulty of "capturing" benefits: PHC services and other program benefits cannot generally be restricted for the use of certain groups, nor can they be accumulated or "hoarded".

(7) The net effect of these features is referred to by Cleaves (Cleaves, 1980:286-289) as the "problematique" of a given policy. According to Cleaves, those policies are less "problematique"--i.e., are easier to put in place and administer--which have simple rather than complex technical features; which involve marginal rather than comprehensive change; which have a single target group; which have a single-goal objective; which have clearly-stated and unambiguous goals; and which have a short duration or time horizon. Along these dimensions, social programs are clearly much more "problematique" than are most capital-intensive, infrastructure-building development projects. Other authors, including Uphoff (1980) and Montgomery (1979) have identified similar sets of critical program features. The points included in our discussion represent a distillation of these various perspectives; a number of these factors are discussed in greater detail in Chapter 2.

A number of other features, however, may be unfavorable to the adoption and implementation of PHC:

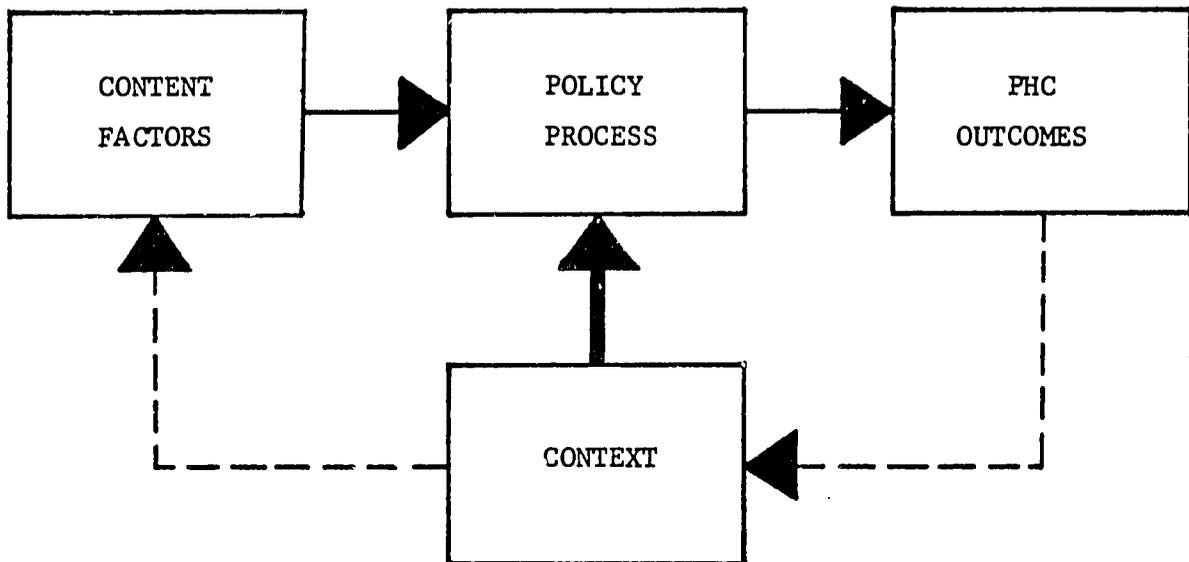
- * Change in the mode of health care delivery: PHC implies changes in the way health services are provided to the rural population, whether those services have been provided by traditional medical practitioners or by physicians on an occasional basis. The introduction of PHC is likely to be resisted both by these other types of providers, and by the target group itself which may consider PHC to be "second-class medicine".
- * Diffusion of benefits: The "public good" aspect of PHC, which makes program benefits available to the entire community, also makes it difficult to mobilize target group support for PHC.
- * Ambiguous goals and long time horizon: The unclear terms in which PHC (and other health program) goals are often expressed, and the long time frame over which benefits must often be deferred, reduce participant understanding of PHC as well as the potential for mobilizing their support.
- * High recurrent resource requirements: Although start-up costs are not great, PHC is highly labor- and administration-intensive. Furthermore, the target population is often inaccessible due to geographical considerations and a lack of supporting infrastructure. As a result, PHC programs frequently encounter high and unanticipated ongoing program costs.
- * Redistributive economic impacts: In the presence of limited government revenues and agency budgets, allocations for PHC must be drawn from funds for other types of activities. This is likely to lead to considerable political and administrative resistance to the introduction of PHC.

This brief examination of PHC "content" factors, and their implications for program performance, suggests that those features unfavorable to PHC-- principally the difficulty of mobilizing political support, and high recurrent costs-- are quite significant. They may in fact be so substantial as to make it improbable that PHC can ever be carried out. It is thus all the more important to look at the setting or "context" of PHC programs, in order to identify the particular conditions under which these features will have the greatest influence on program performance. (8)

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- (8) These features are broadly similar to the conditions facing other rural development programs in the "Basic Needs" policy strategy. Yet PHC has distinctive elements in this area as well; health care has a typically strong cultural significance for all populations, and its provision is usually restricted to specifically trained individuals. These features

The functional relationship between the content and context

Figure 1
Content, Context, and Policy



of PHC is illustrated in Figure 1. In this diagram, features of the "content" and "context" are each seen as influencing the "policy process" through which PHC and other interventions must pass to be adopted and implemented. As so determined, the "policy process" yields changes in health status and other PHC outcomes. In the following section, an analytical framework is presented for examining the policy process, and its associated contexts, in greater detail.

have specific implications for program operations. These considerations imply that the dynamics of PHC performance will be similar in some respects to those of other health services, on the one hand, and of other rural development programs on the other; however, generalizations made about these other types of programs must be explicitly tested before they can be directly applied to the PHC setting.

C. PHC and the Policy Process

The next step in our examination of the dynamics of PHC is to lay out a model describing the PHC "policy process". Such a model, taking into account the relation of PHC to its various contexts, will serve at least three functions:

1. It will provide a framework for organizing the literature on PHC;
2. It will serve as a basis for the development and testing of hypotheses concerning PHC performance; and
3. It will provide a basis for developing recommendations for PHC program improvement.

To fulfill these purposes, the model must meet several minimum conditions. First, it must be relatively simple, in order to be understandable to a wide range of audiences. Second, it must 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. Finally, it must be empirically testable, to permit verification and to allow the introduction of feedback for continuing refinement.

The model of the policy process described here adopts a fundamental distinction that is made by most analysts, between polycymaking --the broad choice of goals, objectives, and means-- and implementation --the translation of policy into action programs designed to achieve policy goals.(9) Beyond this basic separation, a wide range of models have been proposed, which identify policy processes in varying degrees of detail.(10) For purposes

(9) (E.g., Grindle, 1980a:7). This categorization follows a distinction made in the management policy literature between strategy and structure. As originally set out by Chandler (1962:13-14), 'strategy' is "the determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out those goals." Correspondingly, 'structure' is "the design of organization through which the enterprise is administered... (including) lines of authority and communication... (and) the information and data that flow through these lines of communication and authority." Chandler's well-known thesis, that 'structure follows strategy', originally focused on the new organizational forms and activities that are generated as a policy is adopted in a particular system. It has been applied to development programs by Korten (1975), Ickis (1978), and others.

(10) Lasswell, for example, identifies seven discrete policy

of this project, we follow a general distinction made by Korten (1976:12), Grindle (1980a:8-10), and others, in which the implementation phase is further separated into two stages which correspond to "management" and "operational" activities. Korten defines the resulting three stages of the policy process as follows:

1. Policy Formulation: The selection of goals to be achieved through intervention; the identification of broad strategies for the pursuit of those goals; and the taking of actions to facilitate the pursuit of the chosen strategies--which signifies policy adoption.
2. Policy Implementation: The translation of adopted policies into the design of action programs, through the preparation of a detailed plan, the establishment of management procedures, and the introduction of pilot activities.
3. Program Implementation: Operation of the planned action program at the bureaucratic level, and the provision of services to achieve the goals of the policy. (11)

These categories are well suited to the analysis of PHC. As described in the preceding section, these relatively distinct activities within the policy process correspond closely to the three principal levels at which these activities occur--the national political arena, the implementing agency (usually the Ministry of Health), and the community setting. (12) Second, each stage may be assigned specific measures of output to permit the assessment of performance. Our general framework for analysis is shown diagrammatically in Figure 2. With reference to the features of PHC which were described above, the following stages of the PHC

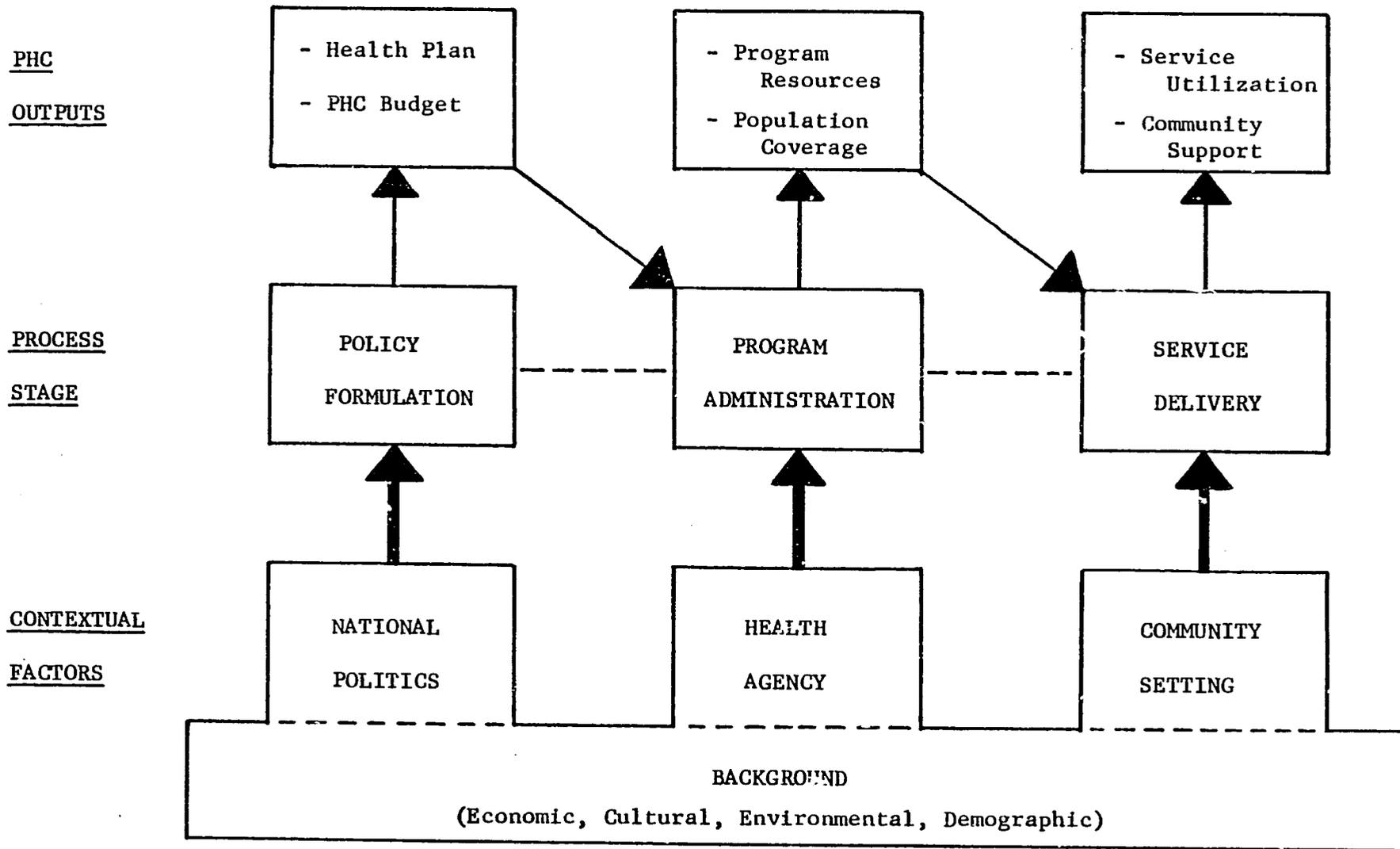
"functions" (Montgomery, 1979), while Williams (1975) specifies a different, six-stage policy process. A variety of more complex implementation models have been proposed (e.g., Smith, 1973, and Van Meter and Van Horn, 1975). These approaches serve different analytical purposes; most, however, are intended as conceptual vehicles rather than as frameworks for empirical research.

(11) Because of possible confusion in the usage of the terms 'policy', 'program', and 'implementation', the second and third stages in this framework are reclassified as "Program Administration" and "Service Delivery," respectively.

(12) Leichter (1979:39-40) adopts a less specific typology of factors--situational, structural, cultural, and environmental--in his case study comparisons. This perspective is useful, and we attempt to integrate it into our process model.

Figure 2

THE PHC POLICY PROCESS



policy process are identified:

1. Policy Formulation includes the mobilization of political support, the allocation of economic resources, and the preparation of a formal plan for PHC. The literature identifies at least three elements of the national political context that may influence these functions in a number of ways:
 - a. Regime Characteristics, for example, the government's ideological orientation and access to economic resources, influence its motivation to adopt a PHC policy, as well as its capability to provide economic support for PHC activities.
 - b. Interests and Interest Groups, including health care providers, the beneficiary population, and governmental institutional actors, and other groups, who enter into the bargaining process over PHC policy, offering various types of support or resistance.
 - c. The Health Planning Process, which influences through its orientation and relative strength the form and direction of the national PHC plan.
 - d. Foreign Actors, including international organizations, donor agencies, and other groups who may provide technical and/or financial support for PHC policymaking and implementation.

For research purposes, specific measures of policy adoption could be:

- a. a health plan with clearly stated goals and strategies to reach the rural poor through PHC; and
 - b. change in the approved MOH (or other responsible government agency) budget for PHC.
2. Program Administration includes the development of PHC resources, provision of administrative support, and research and evaluation. These activities are conditioned by features of the Ministry of Health or other implementing agency, which include, at least:
 - a. Administrative Commitment to PHC, for example, the orientation of MOH decisionmakers and the incentives facing other personnel.
 - b. Institutional Capacity, to provide manpower, administration, research, and other PHC resources, which covers, for example, staff training and skills, and agency management systems.

- c. Pilot Activities for PHC, to provide technical and operational knowledge about program dynamics and effects, often in preparation for larger-scale implementation.
- d. Administrative Structure, including decentralization and interagency coordination of PHC activities, which determine how programs are organized and how they relate to their operating environment.

Measures of effective program administration might be:

- a. increase in the number of PHC workers, health posts, and other PHC resources;
- b. increase in the population coverage of PHC programs;
- c. expenditure rates for the PHC budget; and
- d. pilot projects or other initial PHC activities in the field.

3. Service Delivery includes the provision of services, their utilization by the target population, and local participation. These activities are strongly influenced by many factors in the community setting. The literature suggests that these include:

- a. Socio-political Structure in the local area, for example, the political strength of the poor, the extent of ethnic or other cleavages, which influence the likelihood of the target population receiving assigned PHC services, and the extent of community participation.
- b. Existing Health Services, including the extent of modern as well as traditional health care, which will influence the nature of local demand for PHC, and aspects of PHC program design.
- c. Resource Requirements for PHC that are faced by the health agency as well as the community, which, relative to resource availability, play a large part in determining effective program strategies.

Measures of effective service delivery are:

- a. rates of utilization of PHC services by the target population; and
- b. community support for PHC activities.

In addition, a set of 'macro-level' or background factors may be identified, which have broad effects on the formulation and implementation of PHC policy. These are relatively general, but may be seen to exert a significant influence at each of the three levels of context. They include:

1. Economic Factors, such as the level of national income and income distribution, which affect the economic structure of PHC.
2. Cultural Factors, for example, attitudes about health and illness, and health practices, that influence demand for PHC.
3. Environmental Factors, including climatic and geographical features and prevailing health conditions, which affect health care needs and the logistics of PHC.
4. Demographic Factors, such as age distribution, which will influence health care needs.

These and similar factors are often included as exogenous variables in analyses of development policies and programs, to explain particular outcomes. They are included only indirectly, however, in the present model. (13)

It will also be observed that the ultimate technical objective of PHC, namely, the actual improvement of population health status, is not included in this model. This outcome measure is omitted chiefly because changes in health status are recognized to be the result of many factors, most of which are beyond the scope of PHC activities (e.g., Haignere, 1980; World Bank, 1980; Bloom et al., 1981). In general, it may be judged that the linkage between health policies and identifiable changes in health status has yet to be established. The more limited

(13) We recognize the importance of these overall influences, but in the development of our analytical framework we have found that their effects may be more appropriately considered as being incorporated in the specific variables that are used to describe the dynamics of specific stages of the policy process. We have found sufficient evidence of interconnections between background variables and the included dependent variables to consider the dependent variables as to some degree proxies for background factors, and it appeared to be beyond the scope of this project to examine the independent influences of these variables. Accordingly, we do not include these as being qualitatively separate from the others we do address; rather, we describe their effects as they occur, mediated by political and administrative factors.

objective at present is to identify factors which affect or constrain the delivery of PHC services; it is unfortunately beyond the scope of a project such as this to address in detail questions of whether the service has desired impacts on health levels. However, through this analysis it may be possible to suggest conditions under which programs do in fact have significant effects on health status.

The relationships among each of the PHC stages and their associated outputs is described in greater detail in Chapter II. These sets of indicators are not exhaustive, but they provide general evidence of national commitment and efforts toward PHC goals. Their relative importance will vary among countries, as will the significance of different findings; on balance, however, each is a necessary and observable component of PHC "success."

This general model, as shown in the diagram of Figure 2, is a heuristic device which is used to assist our thinking about policy processes. The use of any analytical model poses risks of oversimplifying a complex reality, however, and several limitations on the usefulness of this process model may be briefly noted, which make it difficult to apply such an "ideal" sequence directly to actual cases.

First, as Grindle (1980a:8-9) observes, a policy often evolves over time and during program operations, as objectives are defined more precisely. Thus, goal-setting cannot be confined to the "policy formulation" stage, since changes in goals do occur as a policy is implemented. Programs may also grow through an iterative process, as objectives are successively reinterpreted. In addition, different programs which were begun for other purposes are often later justified as being in support of the newly popular policy, after they are underway. An example of such "inclusion" would be family planning programs, now frequently rationalized as being part of the PHC strategy.

Second, it has been argued that sequences are not as important as the types of decisions that are being made. Attention has been focused on the distinction between "political" and "technical" decisions, each of which is necessary for policy adoption and implementation. 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. (14) In the framework

(14) (WHO, 1979c:20-26; also Uphoff, 1980.) The most prominent example of this continuity of functions arises in the classification of planning activities. As described by many researchers, including Caiden and Wildavsky (1974) and PAHO/USDHEW (1978), the planning function extends through

presented here, most technical decisions have been assigned to the "content" of policy, and discussion is focused on the range of primarily political decisions which are central to the policy process. However, this distinction tends to obscure changes in technical decisionmaking which occur over time, which may influence the "political" policy process in undetected ways.

Third, some analysts have advocated the study of "political-administrative systems" as a whole, rather than attempting to examine individual elements of the policy process. This perspective receives support from the fact that the relationships among identifiable contextual factors are analytically complex. In the first place, there are few concrete distinctions between the four levels that have been set out: the predictable resistance of the medical profession appears as an influence at all stages of the policy process, for example. 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, the 'background factors' are likely to influence the other three contexts in differing ways (e.g., Clinton and Godwin, 1979; Hadden, 1980).

In light of these limitations and alternative conceptual frameworks, a model such as this cannot be rigidly applied. The three stages as described are not seen as following a strict sequence; they can, and usually do, take place at the same time, but generally in different settings. They are not sequential in the sense that each must be completed before those succeeding it can begin; however, they do follow a logical order, in that the outputs of one stage form the basis for the activities in later ones. There is obviously a continuity among the activities in all stages, in which feedback processes occurring both within and outside the program serve to maintain their interrelationship. Finally, it must be recognized that the selection of analytical frameworks is at some point arbitrary--that it is a choice "to locate political processes within certain context of time and space in order to be able to make meaningful statements conveying the impacts of environmental concerns and internal structural characteristics on program operations" (Heisler and Peters, 1977).

all aspects of the policy process: planning encompasses the formulation of strategies, the development of programs, and the modification of programs over time. Others, including Litsios (1971) and Mott (1974), have expanded the definition of planning to encompass operational activities as well; the latter inclusion is not made in this present model. who expand the definition of planning to include operational activities as well.

In the next section we make use of this framework to introduce the relevant literature on PHC. In the sections following, and in the remainder of this report, we elaborate on this process model, and outline a strategy for operational research and applications.

D. Overview of the Literature

As described above, PHC is the subject of a wide literature which includes published articles and books, as well as unpublished reports and other documents. Using the framework just introduced, we may distinguish three major concerns in the study of PHC, according to the level at which the subject is addressed. In these approaches, PHC is considered as a specific policy as a type of program and as an activity carried out in the community. These areas of focus parallel the distinction made in this report between the stages of policy formulation, program administration, and service delivery.

1. PHC as Policy

The 'policy' literature on PHC uses a variety of social science perspectives to examine issues related to the formulation of national PHC policies. The central issue addressed is that 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 versus 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. The majority of this literature found no strong relationship between regime type and the content of national decisionmaking (see, for example, Ayres, 1975; Hayes, 1975; and Leichter, 1975). Hayes, 1975; and Leichter, 1975). Other authors, however, have emphasized that socialist regimes may be particularly conducive to policy innovation; much of this literature in fact focuses on the health sector. (15)

(15) There is, for instance, a vast literature on health care in the People's Republic of China; many of these studies maintain a radical or Marxian perspective (e.g., Sidel and Sidel, 1979). Among the 'policy' studies of other socialist health systems are those by Gish (1973) on Tanzania, and Navarro (1972) and Guttmacher and Danielson (1979) on Cuba. A number of papers which adopt a Marxian viewpoint are collected in Ingwan and Thomas (1975).

Studies of family planning programs have also examined aspects of the formulation of population policy. These studies, which are devoted largely to case materials and broad aggregate analysis, include edited works by McCoy (1974), Godwin (1975), and Montgomery et al. (1979). A number of more analytical studies have appeared recently, among which is a collection of regional reviews by USAID (1979). (USAID, 1979). The findings of this research suggest that demographic, economic, and regime characteristics, as well as interest group activities, set important conditions for policymaking about family planning.

Regarding the health sector, A longstanding interest in the formulation of national policy is reflected in the comparative literature, which has focused primarily on developed countries (e.g., Altenstetter, 1978a; Leichter, 1979; Marmor and Bridges, 1980). These studies have been supported by a substantial amount of research on general issues in the comparative study of health systems (e.g., Wienerman, 1971; DeMiguel, 1975; Elling and Kerr, 1975; Litman and Robins, 1971; and Elling, 1980a, b). Recently, several careful case studies of health care policymaking in developing countries have been prepared (e.g., Janovsky, 1979), and detailed comparative studies of health politics in developing as well as developing countries have also appeared (Marmor et al., 1977; Haignere, 1980; Bossert, 1979, 1981; and Bjorkman, 1979). A recent major contribution to this literature is the comparative study of decisionmaking for PHC across seven countries, sponsored by the Joint Committee on Health Policy (JCHP) of WHO and UNICEF (WHO, 1981).

Overall, this literature is seen to be useful, but somewhat limited. Analyses tend to focus on case studies, while comparative work remains principally descriptive and, to date, highly unsystematic. Recent trends, however, hold some promise for a more coherent approach. This literature will be drawn upon in Chapter II to generate hypotheses about the process of PHC policy formulation.

2. PHC as Program

In contrast to the study of policymaking, considerably greater attention has been given to the implementation of PHC, once national policies have been established. Work has emerged from two principal sources: the general field of development administration, and program evaluations in the health sector. These streams appear to be converging in useful ways.

"Development administration" is a term used to cover several different approaches to the study of bureaucratic processes in developing countries, focusing on efforts by national governments and other organizations to improve administrative performance

(Jones, 1976). Existing institutional structures are viewed as playing a large role in the effectiveness of all types of development activities, including health care (Cleaves, 1974). Recently, the emphasis in this literature has shifted from the study of administrative structures to the examination of program dynamics, which has resulted in a large and growing body of research on implementation: on how programs "work." The implementation literature in general has emphasized issues of institutional linkages, timing of activities, aspects of program "content," administrative leadership, and personnel motivation. (16)

The specific area of health programs, and particularly PHC, has been addressed in only a small number of studies, but the extension of 'implementation' principles to health programs is increasing (see, for example, discussions by Esman and Montgomery, 1980, and Lindenberg and Crosby, 1981). The broader literature on health care implementation has grown out of evaluations of a number of pilot and demonstration projects which have been conducted over the past decade. (17) A wide range of other demonstration projects have been supported by donor agencies and private voluntary organizations over the past decade. Summaries and descriptive analyses of many of these projects have been prepared (American Public Health Association, 1977; Baumslag et al., 1978). Research has also been conducted on large-scale PHC-type programs supported by donor agencies (e.g., O'Connor, 1980, on basic health services in Afghanistan, and Brinkerhoff, 1980, on projects in Mali). Case materials on programs in nutrition and family planning have also contained examinations of projects relevant to PHC (see, for example, Austin, 1981, and Korten, 1976). From these and other evaluation studies of PHC projects have emerged analyses discussing the incorporation of implementation considerations in health program evaluation (Ugalde and Emrey, 1979; Bloom et al., 1981).

(16) The literature on program implementation in developing countries has been ably addressed by a number of researchers. See, for example, the review by Ingle (1979) and many case studies, some of which have already been cited (e.g., Grindle, 1980b; Honadle et al., 1980; Knight, 1980; and Honadle and Klauss, 1979).

(17) An especially large set of pilot activities has been conducted in India. Among the best-known of these projects have been several integrated health-nutrition-family planning programs; see, for example, Pyle's studies of projects in Maharashtra and Madhya Pradesh (Pyle, 1976, 1980; and discussions of this latter work by Grindle (1980a) and Cleaves (1980). The experience with these demonstration projects has contributed to the formulation of a long-term strategy for PHC in India.

The 'program' literature has thus begun to link design issues with features of the political and administrative environments in ways useful for analysis, and this will be used in Chapter III to develop hypotheses which relate program administration to PHC effectiveness. However, there is found in this literature a lack of systematic approaches to the comparison of administrative processes; in addition, much greater attention needs to be placed on the development of specific indicators, and their incorporation into evaluation procedures. It is hoped that the research strategy outlined in this report will contribute toward these ends.

3. 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 here are efforts to promote community participation in program activities, and to expand the use of paraprofessional workers.

As with other areas of the study of PHC, much of this work originated in efforts to improve the delivery of community-based family planning services (e.g., Stifel et al., 1977). More recent work has been directed towards enhancing the management of integrated rural development (IRD) programs, which include a broad set of activities for the development of agricultural regions. (18) Similarities and interrelationships in the context of service delivery between these efforts and PHC have made much of this more general work readily applicable to PHC programs. Specific attention to problems in the management of community-based health programs is increasing (e.g., in O'Connor, 1980; and WHO, 1980a), and much of the 'program' literature described above documents community-level operations in PHC pilot projects (e.g., American Public Health Association, 1977).

The objectives and processes of local participation in community-based programs in all sectors are thus broadly common, and local organizations are often promoted as a means of gaining community support for PHC among other development activities. There is a growing body of research examining experience and problems in local participation in rural areas. A major part of this work has been conducted through Cornell University (see, for example, Cohen and Uphoff, 1977; and Cohen et al., 1978). Reviews have also been made of the experience of local participation in water supply and sanitation programs (Van Wijk-Sijbesma, 1979). Most prominently, WHO has focused attention on community participation in PHC efforts (for example, WHO, 1978). A synthesis of this

(18) The IRD literature spans both our 'program' and 'community' categories; see summaries in Lele (1975), Honadle et al. (1980), and Cohen (1979).

overall literature has not yet been made, although several recent publications reflect progress in this area (e.g., Esman and Montgomery, 1980).

There is also a large amount of research which examines the role of paraprofessional workers in PHC programs. As described above, the paraprofessional was considered to be central element in the evolution of the PHC 'strategy'. Recent work has emphasized the technical aspects of community health workers. The Cornell University group has studied the overall use of paraprofessionals in health care and agriculture (Esman et al., 1980). WHO and other organizations have focused on the training and functions of various types of local health workers. (19) A higher, "intermediate" level of health worker--the MEDEX--is described by Smith (1978), and others. The role of indigenous medical practitioners in PHC has also been widely examined; see, for example Dunlop (1975), Taylor (1979), and contributions by medical anthropologists in this area (Kleinman, 1978).

In general, the 'community' literature is probably the most extensive of the PHC materials. This emphasis has been to some degree appropriate, since the focal point for PHC intervention is in fact the expansion of services at the community level. This literature has also been the most successful in addressing the linkages between policy objectives and operational constraints. However, as in the other cases, there has been very little explicit assessment of the relationships between different implementation processes and desired outcomes, nor has there been a systematic attempt to compare experiences across a large number of nations. We draw upon this literature in Chapter IV to generate hypotheses relating to the delivery of PHC services.

4. The State of the Art

The PHC literature to date contains useful elements of a general framework for policy analysis, as well as many scattered examinations of influences on health care and other human development projects. There are also several preliminary examples of comparative analysis of these factors. Nevertheless, there are at least three major problems that may be identified in this work:

(19) WHO has promoted the "primary health worker" (WHO, 1976), based largely on the Chinese barefoot doctor model. O'Connor (1980) documents the introduction of the similarly defined 'community health worker' in Afghanistan; Denny (1974) and Esman et al. (1980), among others, identify a wide range of different paraprofessional models.

- * 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 little regard to how the specific questions they examine are conditioned by the wider 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, with little attention 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 a third limitation, which is the lack of any comprehensive or unified model 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, which is an essential component of PHC policy assessment, thus remains quite weak.

All of these problems are to some extent endemic to the enterprise of comparative research. However, in the following chapters we will suggest ways to overcome certain of these limitations, in the form of a comprehensive strategy for research. Utilizing the general framework of the policy process that was set out above, we will draw a series of hypotheses which may be tested through systematic empirical analysis.

E. Methodological Issues

The principal objective for the model introduced above is that it be empirically testable. In Chapter V we discuss in greater detail the design of research that will make use of this model. Here, we briefly introduce three issues which are central to such an analysis: the interpretation of relationships among the variables in the model; the collection of data for the indicators selected; and the selection of cases for study.

We first consider the relationships among the various components of the model that is shown above in Figure 2. In this model there are two broad classes of relationships that are involved in PHC "success." First, there are those between contextual "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 relationships are those among the three stages of formulation, administration, and service delivery. Based on an examination of the dynamics in each of these stages, we may arrive at an understanding of the range of conditional influences on PHC adoption and implementation. The model is designed to focus on knowledge about variables that are malleable by policymakers, and it is based on indicators that are meaningful, measurable, and available.

Data availability is clearly a central problem in any research model of this nature. Indicators have been selected so as to allow the relatively direct collection of data, but many items will obviously not be readily available for many countries. A preliminary catalog of data sources for the indicators that are proposed is included in Chapter V, which also contains a brief assessment of data availability and quality. Limitations on data for specific countries will, however, require the selective adoption of indicators and the identification of related measures for which data can be obtained. A survey has been made of the most probable sources of data and other information for this project, covering U.S.-based agencies and organizations, international organizations, and published and unpublished documents. This survey, reported in the Appendix, reveals that while much of the essential data are in fact available for many countries, it is frequently not in convenient form and may involve substantial problems of reliability and consistency. Informal sources, particularly through interviews, have also been examined as an alternative to in-country collection of data items. Data collection problems experienced in earlier studies of PHC and other health care policies will also provide a guide for this analysis.

There are two distinct methodological approaches to analysis of the model proposed here. The first of these is aggregate statistical analysis of a relatively large number of countries. Aggregate methods for cross-national research of social and political hypotheses have been used in the political science literature for some time (Holt and Turner, 1970). Although most studies in this field have tended to focus on limited, macro-level issues, significant aggregate studies of socio-economic development processes have been conducted of more micro-level issues (Adelman and Morris, 1965; 1973). Aggregate research in comparative administration and on development agency programs is not so well advanced, due both to a lack of consensus about the scope and objectives of such study (Montgomery, 1979; Uphoff, 1980), and to the lack of availability of data corresponding to the research frameworks that have been proposed. The use of broad social and political indicators, in contrast, does not allow sufficient precision to provide consistently meaningful findings about individ-

ual country health services.(20) Aggregate analysis also faces inherent statistical problems as well, relating to multiple causation and conditional outcomes, which severely limit the power of standard regression techniques.

The 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 processes or performance. Comparative cross-national research on country health systems has, as described earlier, been carried out for some time. Most of this work has focused on Western Europe and the United States, however, and a limited amount of attention has been given to specific comparisons among developing countries.(21)

Comparative studies require relatively more detailed information than do aggregate analyses. In addition, the available literature has not resolved issues of the reliability of conclusions reached by different types of comparisons; debate over the relative usefulness of 'contrasting', as opposed to 'similar', case studies for the drawing of cross-national generalizations is ongoing. On the one hand, comparisons of widely diverse countries may yield few meaningful findings about the actual dynamics of health system performance. On the other, the comparison of logically grouped, similar countries may not include variations in characteristics of interest, and so precludes useful results as well.

(20) For example, Haignere's regression analysis of the relationships between economic, political, and health system variables, and health status indicators, yielded suggestive but inconclusive results (Haignere, 1980). Dunlop and Caldwell (1979) have examined characteristics of developing country health planning processes using a combination of broad indicators and 'process' variables, with some significant findings.

(21) This has included studies of the 'exportability' of the Chinese PHC model to other countries (Rifkin, 1972; Ronaghy and Solter, 1978); more detailed comparisons such as that by Ugalde (1975) between health systems in Colombia and Iran; and broader analyses of PHC policymaking in multiple countries (Bossert, 1980; WHO, 1981). This latter research was a large-scale comparative study of national decisionmaking for PHC, conducted jointly over the past two years by WHO and UNICEF. Case studies of seven countries in various regions of the world were prepared by individual country teams. While the final report offers a number of useful generalizations about the formulation of PHC policy, the specificity of the study was limited and few output measures were considered.

This report concludes with a proposed research strategy which specifies initial research activities that USAID can adopt within a limited research budget. We suggest that attempts be made to collect systematic aggregate data on political and administrative variables as part of its project review and evaluation process. The resulting data set could serve as a basis for testing a variety of hypotheses using the aggregate data approach. A second effort would be to select a cluster of three to five country cases, for more detailed "similar case" examination of other hypotheses--primarily those relating to administrative and community-level variables. This combined approach could produce ongoing, policy-relevant knowledge of use not only to health care policymakers, but also to those in policy areas beyond the health sector, such as administrative support, transportation, and education.

II. THE FORMULATION OF PHC POLICIES

A. Introduction

In this and the following two chapters we review the literature on PHC and related interventions to develop a set of generalizations about the formulation and implementation of PHC policies and programs in the developing world. As described in Chapter I, we have found no existing theories that are sufficiently comprehensive and detailed to address the policy-relevant issues that we are seeking to address in this project. Nevertheless, a number of analyses of the policy and program process surrounding Basic Needs policies provide insights that are very useful. We have found that many of the concepts and descriptions central to an understanding of PHC are interpreted or addressed in this literature, and can be organized into a more systematic treatment. The approach that we have adopted makes use of available studies as much as possible. (1)

Our framework is, once again, essentially a model of the PHC "process", which is divided into the stages of (1) Policy Formulation, (2) Program Administration, and (3) Service Delivery. We

(1) The literature summary which follows incorporates a wide range of references, which are included in the more extensive bibliography of this report. It was not possible to make complete use of all of the relevant citations, many of which we consider to be duplicative. We may briefly list a number of the references that are most frequently referred to in this chapter: several broad surveys of comparative policy analysis of health and development, e.g., USAID (1979) and Elling (1980); comparative and case studies of health care policies and programs, by Bossert (1981), Haignere (1980), Janovsky (1979), Leichter (1979), and O'Connor (1980); studies of program administration and organization, including papers by Uphoff and Esman and Montgomery found in Knight (1980), as well as works by Smith et al. (1980), Smith (1978), Ugalde and Emrey (1979), and papers by the Cornell University Rural Development Committee; and a series of published and unpublished works by the World Health Organization, most prominently the JCHP study of national decision-making for PHC (WHO, 1981). Journal citations have been obtained principally from Social Science and Medicine and The International Journal of Health Services. The overall set of references that we use are undoubtedly incomplete, and we expect that this listing will be supplemented over time.

present this process as an idealized, general sequence describing the transformation of PHC from strategy to concrete services. The framework is introduced through a series of hypotheses or propositions about the relation of various contextual factors to specific elements of PHC.

The hypotheses which are set out in these chapters represent a preliminary attempt to organize the existing knowledge about the dynamics of PHC. This approach is ordered as an explicit effort to generate hypotheses for future examination. Indicators are proposed for many variables, to suggest means of testing the validity of different hypotheses. With the hope of contributing immediately to USAID decisionmaking processes, we have suggested policy conclusions which appear most realistic, given the present state of the art. In Chapters V and VI, we discuss alternative research methods and present a possible strategy for projects that can contribute to a better understanding and integration of the material that is presented here.

The process of policy formulation consists, as described earlier, of the choice of goals, objectives, and means for pursuing a policy intervention such as PHC. Carrying out this process requires, first, a sufficient balance of political support within a country to make the intervention viable to those in power. Second, it requires sufficient economic and technical resources to make the action feasible. In this section we examine the particular activities through which policies for PHC are brought into being, and the conditions under which these activities can best occur. We distinguish initially between two basic yet overlapping aspects of policy formulation: the political process through which support is generated and resources are committed for PHC, and the planning process through which the support and commitment are formalized and rationalized.

The outcome of these political and planning activities is, most simply, a "national policy for PHC". However, as is well known, the common designation of "PHC policy" in different settings is nonetheless likely to refer to diverse intentions and realities; our first need is to identify specific outputs which will serve as points of reference for PHC policies, between countries and over time. The following two measures are judged to be reasonable indicators of the adoption of a PHC policy:

1. The presence of a national health plan with clearly stated goals and strategies to reach the rural poor through PHC.
2. An increase in the approved budget of the Ministry of Health (or other responsible government agency) for PHC or other designated health services to rural areas.

The appropriateness of particular measures, and their relative meanings, may be expected to vary from country to country. For example, budget increases might reflect assistance from donor agencies or other external sources, although the truest test of PHC adoption is the commitment of funds from government revenues. However specified, decisions on resource allocation represent a "litmus test" of political commitment; individual measures must take into account their interaction with other, "technical" factors, and their relation to the strength of overall health sector budgets (WHO, 1981:36-7). Likewise, the inclusion of PHC within a national health plan may, in the early stages, be justifiably restricted to the support of pilot projects or other initial PHC activities. More precise evaluation of the technical quality of the plan, and of the feasibility of its proposals, rests on many more detailed considerations. These issues are discussed in the sections which follow.

It is important here to note that these "outputs" which signify the successful adoption of PHC policy are often referred to in the literature as evidence of "political will." Kleczkowski, for example, identifies "political will" as the most important factor in promoting effective strategies towards "Health for All" (Kleczkowski, 1979). In their assessment of the practical implications of the PHC strategy, Joseph and Russell (1979) consider "socio-political motivation" to be a necessary ingredient of any national policy. Banerji (1974) cites an "absence of political will" as a key factor in the poor performance of rural health programs in India. Finally, in a review of the politics of family planning programs, Clinton and Godwin (1979:92) identify three aspects of political will: (1) public knowledge of high-level government support for a policy; (2) significant local funding in the program budget; and (3) a clear public perception of the permanence of the government's commitment. Defining the term as such, these studies demonstrate the importance of "political will," but they still tell us little about how political will is generated in different political contexts.

Our central task in this analysis, then, is to define the political and administrative factors which are likely to be related to the creation of "political will," as indicated by the successful development of a national health plan and the commitment of national budget allocations to PHC. It is useful to distinguish two central approaches to answer the question of what contributes to the generation of "political will" for PHC. One approach emphasizes the role of political culture as a major determinant, while the other focuses attention on structural factors such as interest groups and institutional characteristics; each suggests a distinct set of independent variables for our model.(2)

(2) In each case, the variables themselves are likely to be interdependent and difficult to separate. However, their re-

The political culture approach emphasizes the role of values, goals, and ideology in shaping the political context in which PHC policy is considered. The values important in PHC may have to be congruent with the general political culture in order for such a program to be adopted. This concept has been defined as "the set of values, beliefs, expectations, and attitudes concerning what government should do, how government should operate, and what the proper relationship is between the citizen and the state" (Leichter, 1979:60). These belief systems may vary within a given nation, although "political culture" most often refers to the beliefs and values of the ruling elite. Dunlop and Caldwell (1979), for example, point to the significance of the value placed on social equity by those in power as an important factor in the consideration of appropriate health planning models in Africa and Latin America.

Others begin by considering the variety motivations underlying the political and economic choice to adopt a policy for PHC. Uphoff (1980:53) lists four types of incentives to the pursuit of any policy--a policy may be used (1) to strengthen the national system, (2) to strengthen the regime, (3) to further ideological goals, or (4) to promote economic development. Alternatively, we may identify a range of possible motivations or values underlying the choice of PHC policy: economic values of improving national productivity and providing employment; political values of enhancing the stability or image of a regime; and altruistic values of improving social welfare. Each of these sets may be viewed as the potential benefits received by a government, in return for its commitment of support and resources. They are clearly inter-related, but usually separable. Their relative importance will vary over time, and among countries. Furthermore, the reasons for maintaining a PHC policy may turn out to differ from the reasons for its introduction.

These categories offer an initial response to the question of PHC policy choice, and they illustrate the complexity of policy decisions. In any setting, the relative significance of these motivations is determined by many factors--the priorities of decisionmakers, the nature of constituency and interest group demands, and the cultural and practical basis for the legitimacy of health care as a sphere of government action. The perception of this significance by decisionmakers then influences the political "salience" of PHC, and the likelihood that PHC will be undertaken.

A major problem, however, with the "political culture" explanations is the difficulty of specifying and observing the elements of culture which influence particular small-scale policies. While "political culture" might provide important insights into

pective covariances can be the subject of empirical testing.

the dynamics of conflictual issues like family planning, it is not as clear that cultural factors are so important in motivating other, less polarizing policies such as PHC. In this study the role of contextual values will be used to characterize the general ideology of the regime; we will generate hypotheses relating different ideological orientations to the likelihood of adopting the equity-oriented values implicit in PHC reforms.

An alternative approach focuses on the policy role of structural factors, such as interest group processes and bargaining among different actors with stakes in providing or consuming health services. This perspective raises a number of issues, including:

- * Who benefits from PHC, and who supports and opposes it? This raises the need to examine the positions and political resources of various interest groups, and the means by which they make claims on the government.
- * What resources are available to the government, for responding to these claims and demands? The range of possible policy outcomes is determined ultimately by the government's capacity relative to population demands.(3)
- * Who controls the decisionmaking process, and within it, how are decisions arrived at? Health care, like all policies, is ultimately an object of bargaining and so is subject to the "norm of reciprocity" which guides the achievement of solutions satisfactory to all those concerned (Haignere, 1980:202).

These two approaches are incorporated into our examination of the policy formulation process in the following sections. We first consider the role of the government's ideology and development strategy, as the values influencing the choice to allocate resources to PHC. Next, we examine the the effects of a country's political organization, and the participation of target populations and other interest groups in the "politics" of decisionmaking. We then turn to the issue of economic and political capacity to expand PHC, and the various ways in which it can be interpreted. Next to be considered is the ways that PHC policy influences, and is influenced by, the existing health care system and health services. In the next part we discuss the planning process, and how health planning comes to reflect the intentions and interests of the larger political setting. Finally, we examine the role of international actors, who play a part in all aspects of resource allocation and planning for PHC. The major points in each of these areas are

(3) The mix, timing, and emphasis of PHC are all variables, and their balance must be separately determined in each setting (Joseph and Russell, 1979).

stated in the form of propositions or hypotheses, with potential policy implications summarized in the final section.

B. Regime Ideology

Among the most commonly cited determinants of policies for PHC and other Basic Needs interventions is the ideological orientation of a given nation or regime. As described in Chapter I, the strategy of PHC is based on a responsiveness to the needs of poor segments of the population, and is oriented towards improving equity within the country's health care system. The values embodied in PHC policy thus form a part of the broader set of ideas and principles concerning the orientation of a regime to the various parts of the national population, which in turn influences the types of actions that it includes its development strategy. This set of ideas and principles is referred to as the national or regime ideology. (4)

The dimension of ideology has been used for some time in explanations of the behavior of regimes. Perhaps the most common scheme for classifying many schemes for classifying regime ideology have been used by scholars. One such scheme contrasts "conventional", "progressive", and "revolutionary" ideologies. Despite the intuitive appeal of these categories, however, empirical studies have tended to find that these distinctions alone do not substantially explain differences in the policies pursued by given regimes. (5) Using similar categories and a more historical perspective, however, other recent analyses have argued that "reformist" ideology, as an outcome of changes in class structure, may in fact lead a regime to adopt and implement a particular set of social policies. (6) Similarly, under more

(4) There is not a consistent usage of the term "ideology" in the political science literature. Leichter, among others, refers to ideology as the relatively abstract ideational elements of political culture, which may be expressed as a formal and comprehensive set of ideas (Leichter, 1979:60). Haignere (1980:163) defines ideology more generally as "an ideal, desirable image of some life situations; it is a way of perceiving and reacting to events around the individual." We refer to the ideology of a regime at a particular point in time, as reflecting the values of those political elites in power.

(5) In an analysis of Latin American governments, for example, Anderson (1967) found that these ideological orientations did not explain differences in national economic policies. Ayres (1978) reached similar conclusions.

(6) For instance, it has been argued that the rise of the middle

conservative regimes, dynamics leading to the political "inclusion" of formerly marginal social groups may lead to progressive and broadly-based social policies (Stepan, 1978).

For purposes of this project, we use the dimension of "reformism" to reflect the strength of a regime's general orientation toward taking an active role in organizing the economy and society to the benefit of wider segments of the population. "Reformism" may be viewed as a continuum, extending from regimes which are chiefly oriented toward maintenance of existing socioeconomic patterns, to those which are more committed to making changes in social and economic structures. "Status quo" regimes are generally conservative, with power tending to be held by traditional elites, often from rural areas, and in which colonial bureaucratic structures are preserved. "Reformist" regimes may cover a wide range, from conservative yet moderate governments in which incremental changes are pursued, to more radical regimes committed to major structural change and relatively egalitarian political and economic conditions. The degree of reformism can be indicated by several measures, including the declarations of government leaders, the pattern of social programs being undertaken, and composite academic judgments.

In this section we suggest a series of hypotheses, found in the general literature on ideology as well as that on PHC, which relate regime ideology to the adoption of equity-oriented reforms such as PHC. First,

1. Regimes committed to social and economic reform, particularly where that reform involves restructuring the agrarian sector, are likely to support the introduction or expansion of PHC.

By contrast,

2. Regimes with a status quo orientation are not likely to support major reforms of any kind, particularly reforms such as PHC in rural sectors, where power may be maintained by traditional elites.

class in Latin America gave birth to "progressive" populist regimes, which were willing to introduce reforms benefitting primarily the growing urban industrial bourgeoisie and its allies in the middle and working classes. Later commitments to agrarian reform are also taken as an indication of the commitment of new ruling groups to eliminate the economic power of the older, land-based oligarchy in Latin America (O'Donnell, 1973).

At one end of the spectrum of reformist governments fall those with a revolutionary orientation, usually based on socialist or communist principles. As described in the preceding chapter, a significant part of the PHC "policy" literature has focused on the cases of Cuba, Tanzania, and the People's Republic of China, which have had among the most substantial nationwide programs for PHC. Much of the recorded success of these efforts has been attributed to their ideological and practical emphasis on equality of access to health care and other national resources. For example, in a study of the Tanzanian health care system, Gish (1973:211) concludes that the major obstacles to change in most poor countries are "not the usually cited ones of limited resources, poor communication, or lack of technologic knowledge and data, but rather social systems that fail to place high value on the health care needs of rural peasants." Similar observations have been made in reference to the health systems of Cuba, and, to a much greater extent, of China. (7) Although many problems have been encountered in the PHC services under revolutionary ideologies, these regimes have arguably made the greatest advances in PHC policy.

Related to the issue of national ideology and its implications for PHC is the issue of whether a country may hold a specific orientation toward health care which may more directly influence its health services. The overall congruence of national ideology and "health" ideology is illustrated most strongly by the case of revolutionary regimes. (8) Haignere (1980), however, raises the possibility of a lack of fit between the ideologies of the regime and the health system. In her comparative study of four relatively developed countries, she identifies three distinct health ideologies: "libertarian" (as in the U.S.); "egalitarian" (as in the U.S.S.R.); and "mixed" (as in Chile after the mid-1960's). She found a possible conflict between economic and health ideologies in the case of Chile prior to 1960, in which an

(7) On Cuba, see Navarro (1972a, 1972b) and Guttmacher and Danielson (1977). Much of the research on health care in revolutionary regimes has focused on the success of the barefoot doctor system in China, and its evolution since the Communist takeover. See, for example, Horn (1971); Sidel and Sidel (1979); and Lampton (1979).

(8) Leeson, for example, cites four points made by Mao as representing the principles of the Chinese health care system: Lay stress on medical care for workers, peasants, and soldiers; put prevention first; unite western and traditional medicine; medical workers must be integrated with the masses" (Leeson, 1974:438). These principles are congruent with the general ideological goals of Maoism, which emphasized priorities for the masses, respect for traditions, and broad-based rather than individual benefits from government activities.

egalitarian health ideology did not correspond to a libertarian societal ideology.(9) These findings suggest the following hypothesis:

3. In cases where a country's health ideology is at variance from the overall regime ideology, the health ideology will have little influence on the direction of government support for PHC.

A variant of the above hypothesis is suggested in the literature which focuses specifically on a country's development strategy. Here, development strategies which emphasize equity goals are perceived to be different from those which place a priority on GNP growth. Usually this distinction is associated with our categories of reform vs. status quo ideologies, although there may be exceptions.

The important issue is, again, the congruence or "fit" between PHC goals and the goals of equity. For example, Schuftan has examined nutrition policies built on the principle of "food as a right" under two reformist regimes, in Chile from 1970-1973 and in Tanzania after independence. He observes, "Real commitment explains why these governments often overlooked Western criteria of decision making when social advantages were seen in investing in human capital as a strategy for development. Economic development was understood by committed governments as being different from economic growth, and an increase in the GNP (with its unequal distribution) is not necessarily their ultimate goal" (Schuftan, 1979:97). The interrelation of reformist ideology and "alternative", equity-oriented development strategies are also discussed by Field (1981) in an examination of nutrition planning.

Similarly, the JCHP study discusses the necessity of "a development strategy which is compatible with the PHC approach," and concludes:

In contrast to a single-minded quest for economic growth regardless of the human consequences, strategies that emphasize growth with a reduction of social inequalities and an increase in social services are conducive to PHC. This is effectively the path followed by all the study countries (WHO, 1981:12).

(9) Haignere attributes this difference in part to the structure of the Chilean health system. Here, the health ideology would serve as an intervening variable in the relationship of the health care system to PHC policy (as discussed later in this section).

Each of the seven countries studied had adopted some level of reform-oriented policies, although some of the reform measures cited were taken by countries (e.g., Burma) that are not considered "reformist" by all observers.(10) However, this overall relationship has been documented by a number of other well-known studies, including widely known research on Sri Lanka and India's Kerala State.(11) We may generalize initially from these observations:

4. PHC will be more strongly promoted under governments pursuing development strategies which emphasize a mixture of growth and equity objectives, than under governments with more clearly growth-oriented goals.

These hypotheses regarding the impact of a nation's ideology on PHC policy formulation suggest the importance of the fit between the reform and equity goals of PHC and the goals of the political leaders of a country. Recent research by Bossert (1982) has shown that this fit may be mediated in certain status quo regimes by the desire of elites to implement minor reforms like PHC so as to retain (or gain) support from the lower-class rural population, which might be attracted to counter-regime elites espousing reform and equity goals. This contingency indicates a structural mediation of the ideological variables which might be presented as the following proposition:

(10) Analysis of this point must also take account of the constraints that a development strategy may impose in the long term on health care and other development policies. For example, negative consequences of slow-growth strategies in Chile and Tanzania are usually cited as contributing to the major changes that occurred in these countries following those periods examined by Schuftan. In these cases, differing conservative responses led to substantial reductions in the policies and programs he describes.

(11) One possible measure of the performance of equity-oriented policies is improvement in the national distribution of income--as reflected, for example, by increases in the Gini coefficient of income distribution (see the treatment of this measure by Caldwell and Dunlop, 1979). Patterns of income distribution may be expected to influence PHC policy-making in a number of ways; these effects are discussed at greater length in later sections. It should be noted, however, that improvements in income distribution are also found in countries which have not followed basic needs strategies. Indeed, the possibility of increased equity under growth-oriented development strategies has been a major focus of research conducted over the past two decades (Chenery et al., 1965). The case of Korea is often cited as an

5. In status quo regimes threatened by reformist counter-elites, PHC policies will be adopted to co-opt rural support and to avoid the need for more substantial reforms.

These hypotheses hold several policy implications for USAID. First, USAID should expect a more conducive environment for PHC policymaking in regimes with reformist rather than status quo ideologies. However, under status quo regimes with rural guerrilla movements, a "window of opportunity" might arise in which the government might embrace PHC policy more enthusiastically. USAID strategy in reformist regimes and in unstable status quo regimes might then be best planned with relatively short time horizons and with a significant initial commitment of funds. Status quo regimes which are not seriously threatened by counter-elites should be approached using a longer-term strategy, with little expectation of immediate cooperation by the government. Different strategies for the phasing-out of projects should also be anticipated. For reformist regimes it is more likely that national resources can and will be allocated to gradually take over projects initiated with external funds; here, a short phase-out would be appropriate. Status quo regimes are less likely to allot national resources to equity-oriented reforms, and here USAID should either plan for a longer phase-out period, or make arrangements for the introduction of funds from other international sources.

C. Political Structure and Political Interests

In addition to ideological considerations, the literature on political development and policymaking identifies several essential structural characteristics of political systems which affect the policy process. These structural factors in part explain why "rational" policy choices do not always occur, and why ideological explanations alone are not sufficient.(12) The dominant

example of high economic growth rates accompanied by declines in income inequality (Adelman and Robinson, 1977). Significant improvements have been recorded in Korea's health services under this strategy, although this effort has not been directed specifically at PHC (Family Health Care, 1977). The "growth with equity" debate is not at all resolved, however, and the number of countries with experiences similar to that of Korea is likely to be limited. Our proposition based on the original relationship is judged to be supported by available evidence, but it remains tentative.

(12) This position has been expressed by a number of authors, i.e.

metaphor for this analysis is that of a bargaining game, in which the general organization of the political system (i.e., democratic, authoritarian, etc.) sets the rules of the game, and different actors (individual leaders, interest groups, governmental agencies, voters, etc.) bargain with each other over policy decisions. The choices that emerge are the results of compromise and power, rather than ideological "rationality."

In this section we describe the political actors--particularly the interest groups and institutions--which are major participants in the bargaining game of health policy, and discuss their divergent positions with respect to PHC. We then identify the role of different political regime structures--in terms of the contrasts of democratic vs. authoritarian, stable vs. unstable, strong vs. weak--in shaping the power and influence of the different actors, and in establishing the rules to be followed in the policy process. In particular, we focus on the bargaining that takes place in the health planning process. Finally, we discuss the role of international agencies as actors in the health sector bargaining game.

As was discussed in Chapter I, certain technical aspects of PHC help to shape the political attractiveness of the policy, and the role of interest groups may be explored in light of these "content" characteristics. In the first place, health care is fundamentally a policy involved with the distribution of government benefits to specified population groups.⁽¹³⁾ From the decisionmaker's perspective, PHC is among those distributive policies whose costs are chiefly economic, and whose benefits are primarily political (Uphoff, 1980:39). To the extent that these categories are separable, we may infer that some level of political pressure is required in the competition for expenditures which are to be made. Yet there is not likely to be the high level of political opposition to PHC that is often experienced in certain other programs, for example, in family planning and land reform. As described earlier, there may be some economic benefits accruing from PHC which may justify its costs in the political arena, although these are usually not so great as to argue for PHC on a political cost-benefit basis alone.

cluding Briscoe (1977), who writes that the basic constraints on the expansion of PHC-type services are not technical or financial, but "are due to an absence of structural reform in the political economy."

- (13) Distributive policies, involving "the allocation of goods and services following the necessary appropriation of funds to provide these goods and services" (Leichter, 1979:11), are contrasted with other types--regulatory, symbolic, and redistributive policies.

In general, health care is not a highly salient, or "charged", political issue, and there are few clear-cut situations in which the political outcome regarding PHC is immediately predictable. As a result, the differing values and strengths of interest groups may play a critical role in PHC policy formulation, in several ways. Where there is limited interest in health programs on the part of government leaders, interest group support may exert a decisive influence on policy adoption (Janovsky 1979:128). The relative persistence of interest groups may also help decide the eventual outcomes of policy decisions (Quick, 1980). In addition, the public nature of interest group pressure, and the resulting responses to it, may help to preclude the problems led to by nonopposition to proposed reforms (Cleaves, 1980:291).

1. The Power of Beneficiaries and Providers

In this section we identify the major actors who bargain over health policy, and who are likely to play a role in determining whether or not a regime will make a major commitment to adopt PHC. We discuss first the potential beneficiaries of the policy, then its most apparent opponents--the existing health providers.

The most significant interest to be considered in the support of PHC is that of the intended beneficiaries, i.e., the rural poor. As noted above, PHC may not be the preferred health policy of the rural population, and as such, this interest group may not express a demand for PHC. Nevertheless, it may be expected that the greater the importance of the rural poor as an interest in national politics, the more likely some type of reform policy will be targeted toward them. In the absence of a capacity to effect broader reforms, PHC may be recognized by the political elite as an inexpensive means of responding to this group. The economic and political importance of the rural poor is thus likely to determine in large measure the choice to allocate resources for PHC.

However, the poor face several major problems in gaining effective representation. First, as has long been recognized, organizations for aggregating the interests of nonelites in the developing world are generally weak.⁽¹⁴⁾ The poor are often a highly diverse group, culturally as well as geographically, which weakens the expression of their interests in the political arena.

(14) The development administration literature in recent years has emphasized the political problems faced by the rural poor and other "special publics" in developing countries. Associated with these political problems are a series of very practical difficulties in targeting policy benefits to these groups (see, for example, Esman and Montgomery (1980)).

The task of aggregating interests is especially difficult in the presence of social cleavages, along ethnic, religious, and other lines, and where there is regional diversity in these dimensions within a given country. (15) Thus, at the outset, we hypothesize that:

6. The greater the social, ethnic, and religious homogeneity of the PHC target population, the greater will be the capacity to aggregate their interests as potential beneficiaries, and so to bring pressure to bear for the adoption of PHC policies.

The economic significance of the PHC target group is also of obvious importance in the political calculations of decisionmakers. Some authors have in fact grounded their discussion of political power in the health sector in largely economic terms (Sidel, 1979). In the study cited earlier, Haignere concluded that public access to economic resources was more significant than political resources alone, in accounting for popular impact on government health policies. This definition of economic resource accessibility is closely related to the equality of income distribution (Haignere, 1980:200). Caldwell and Dunlop (1979) have also found that greater equality of national income tends to be associated with greater proportionate funding of PHC policies. These findings suggest that,

7. The greater the equality in national income distribution, the greater will be the political significance of the PHC target population, and the more likely it is that resources will be allocated to that group.

The political influence of interests opposed to PHC must also be taken into account in bargaining over policymaking. Major opposition to PHC comes from private practitioners, both traditional and modern, as each group may view PHC as a competitor for clients (Good, 1978; Dunlop, 1975). This analysis suggests:

8. The larger is the role of traditional practitioners in a country's health services, the more likely it is that status quo-oriented elites will resist PHC and the less likely it is that a PHC policy will be adopted.

(15) The broader political implications of cultural pluralism have been discussed in the development literature (e.g., Young, 1976) as well as the health policy literature (Leichter, 1979:48-49).

One strategy for decreasing the opposition of traditional healers is to incorporate traditional medicine within national health services. The availability of linkages with traditional services may actually be seen to offer advantages for the introduction of PHC (Dunlop, 1975). For example, where traditional or informal modes of practice are incorporated into national health programs, PHC may contribute to their overall rationalization and so become attractive as a policy option. (16) Recognizing inter-country variation in the strength of these considerations, we generalize:

9. The greater the incorporation of traditional medical practice into the national health system, in relation to the prevalence of this mode of care, the greater will be the base of support for PHC policies.

A second and perhaps more general source of opposition to PHC in most countries is that coming from the medical profession, through physicians' control of the public and private health care systems. The literature suggests that there are two principal ways in which this control is exerted. (17) The first is through the dominance of medical professional values, initiated by the common equation of health with medicine, and reinforced by the public's conventional reliance on the profession for its health care needs. The second means of control is through the economic interests of physicians, which lead to the formation of a monopoly position in the delivery of health services and the channeling of health resources to physician groups.

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- (16) The appropriate form for the incorporation of traditional medicine will vary considerably among countries, depending in part upon the degree of legal recognition presently accorded it. Dunlop has found that the principal official status of traditional practice in a sample of nine African countries is informal recognition and linkages, along with limited legalization (Dunlop, 1975:584). He observes that while complete legalization is often politically costly, informal recognition may be efficacious in view of the extent of traditional health care, the level of demand for it, and its complementarities with the "modern" health system. Each of these aspects is clearly relevant to support for PHC, as well.
 - (17) (Ugalde, 1980). There is a large body of literature which describes and documents the control of the medical profession over health care at all levels in Western countries (e.g., Friedson (1974); Navarro (1975); and others). Physician dominance of the health sector in the developing world is seen as being at least as pervasive by many authors, but the literature here is much less extensive.

These types of physician control have been observed as having at least three major effects on public health policymaking, each of which may be unfavorable to the adoption of PHC policies (Ugalde, 1980:439-442). In the first place, there is both a formal and an informal control over health policy planning, which usually reflects a strong bias toward curative medicine in urban settings. This occurs through the general membership of physicians within national elites and their consequent access to policymaking. Second, through their presence in decisionmaking capacities in health agencies, physicians are typically responsible for the allocation of health sector resources, particularly the resources for curative services. Finally, through their responsibility for health service administration and delivery, physicians tend to have a strong influence over the implementation of health programs, and its subsequent effects on policy formation.

The elite position of physicians in virtually all countries is widely recognized, a position which is frequently closely related to the strength of the private mode of medical care. (18) However, the dominance of "medical" perceptions in health care has been observed in nearly all types of social systems, including many without private practice arrangements. This is likely to be due to a perceived threat of competition from PHC, if only to professional values. Ugalde, for example, cites studies of China, Cuba, and Tanzania noting physicians' resistance to rural health programs, even where there is no direct incentive to favor an urban, curative emphasis (Ugalde, 1980). This opposition is reinforced by the public's common demand for "Western" types of health care, in most country settings. (19)

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- (18) Evidence of this elite role is found in Segovia's description of the influence of physicians and private medicine in the health sector of Argentina. Political leaders as well as the general public attach prestige to the traditional model of private health care, establishing physician status; and because of the similar class orientations of physicians and policymakers, there is little interest in change at the top levels of the government health system (Segovia, 1976).
- (19) The Western, "medical" model of care exerts a strong and nearly universal influence on public expectations for health service. Socioeconomic development is usually accompanied by an intensified demand for curative medical care, regardless of its practicality. There tends to be a corresponding disregard for traditional as well as PHC-type models of care, which may be perceived as "second-class", especially among urban and mobile populations (an issue discussed in later sections). Physicians, including government health officials, may incorporate objections to "second-class medicine" in their resistance to PHC.

Overall, it is probable that this combination of professional and public opposition to PHC is strongest where physicians do feel real or potential competition from PHC activities. The degree of this perception is likely to be related to the strength, or level of institutionalization, of private medical care. (20) Physician influence in any country will be increased in the presence of organized political activities by the medical profession. Bossert (1981) and Ugalde (1980) have described the role of physician organizations in the Latin American context; similar groups are found in most other countries as well. These organizations, which have close ties to health ministries, are often quite powerful in their promotion of physicians' interests. Because of their capacity to aggregate and channel the profession's already substantial political and economic influence, it is likely that:

10. The existence and political strength of a national physicians' organization will aggregate resistance to PHC policy, and reduce its potential for adoption.

The most direct influence of the medical profession on sectoral and PHC policy is through the predominance of physicians in health ministry decisionmaking positions. Ugalde has undertaken detailed examinations of the role of physicians in the health ministries of Colombia, Honduras, Iran, and other countries (Ugalde, 1979; 1980). He has shown that physician dominance of health agencies is often virtually complete, and is kept exclusive through the promotion of professional values and the exercise of control over hiring, promotion, and reward structures. This influence extends to all aspects of policymaking, and thus represents a critical constraint on the development of PHC. (21)

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- (20) The relative strength of a country's private medical system is difficult to measure, conceptually and practically. One basic and logical indicator is the private share of total health spending; however, as described above, data on health expenditures, particularly non-governmental expenditures, are usually not readily obtainable. In addition, the private health system includes a variety of traditional practitioners as well as physicians. Information from household expenditure surveys and physician income statements, if available, might provide some measure of the financial flow in the to the medical profession. There are, of course, other dimensions of system "strength", as well.
 - (21) Although generalizations in this literature point strongly to the negative influence of physicians in PHC policymaking, we recognize that medical training is by no means to be taken as an unambiguous indicator of professional conservatism. Histories of health service development in many countries

It may be expected that,

11. The greater the concentration of physicians in health ministry decisionmaking positions, the less likely it is that PHC policies will be adopted.

It is recognized by most observers that changes in medical values and the associated implications of physician control over the health sector are most likely to be brought about through reform of the medical education and training systems. Such shifts in training emphasis must include increased attention to public health issues, and actual experience in health care delivery to rural populations. Joseph (1979) and others have noted that major changes in medical school curricula, and often the regionalization of these institutions, are necessary before significant shifts in the values of the medical profession can be effected. These changes must be supplemented by increased emphasis on rural health services throughout the national health system; even in countries such as Cuba, which have clearly progressive health systems, professional values are slow to change (Guttmacher and Danielson, 1975). We hypothesize:

12. In countries whose medical training systems are already actively oriented to rural health care, PHC policies will experience less resistance by physicians, and are more likely to be adopted.

One possible avenue of directing the orientation of professional and health system values toward PHC-type services is through practitioners' acquisition of public health training. However, studies suggest that the monopolization of public health and other specialized training by current health ministry physicians often only reinforces professional dominance in decision-making, without yielding changes in agencies' orientation to rural services (Ugalde, 1979). Research on the effects of such training is very limited, and could be usefully expanded. On the basis of this preliminary evidence, though, we propose:

13. Physician acquisition of specialized training in public health is not likely to decrease, and may in fact reinforce, formal resistance to PHC.

reveal that nearly all of the significant advances in PHC have been made, appropriately, by a number of these individuals have played further roles in the promotion of PHC internationally, as well (Bossert, 1981). Overall, however, such cases reflect exceptions, rather than the rule, in regard to physician attitudes.

The bargaining model implicit in this analysis of competing interests suggests that a crude balance needs to be tipped in favor of PHC in order for it to be adopted through the domestic bargaining game. Our proposed hypotheses reflects factors which should be taken into account at relevant decision points in the policy formulation process. Measures might be taken, for example, to enhance the political weight of potential beneficiaries--through organizing more effective interest-aggregating institutions such as political parties, unions, and government agencies oriented toward the rural poor. Most critical, however, appears to be the role of physicians in the policy adoption process. Physician power needs to be reduced, both through restraints on their organizational capacity as an interest group and through a reduced role for physicians in policy-making positions.

The role of USAID in effecting these changes in power relationships must be indirect, but there are several active steps that can be taken. AID can continue to encourage the development of health-related institutions and organizations of rural population groups. Within the health sector, it can encourage the training of non-physicians, especially public health professionals, for policymaking positions. However, in extreme country situations--where beneficiaries have no political power and little potential for expanding their influence, and/or where physician dominance of health care policymaking is almost absolute--the recommendation seems justified that AID should not attempt to promote PHC until these conditions are altered.

2. Regime Characteristics

In the previous section we have discussed the general characteristics of interest group bargaining, regardless of the type of political regime in which the bargaining takes place. In this section we will examine several characteristics of the political structure which shape the "rules of the game" for the different interest groups.

The structural characteristics of political regimes that we have found most salient to policymaking are: (1) the degree of democratic participation; (2) regime stability; and (3) the regime's autonomous capacity. These characteristics, in addition to the ideological factors discussed previously, shape the policy process in health care in three ways: first, by establishing the importance of voting and other political resources of the competing interest groups; second, by determining the degree to which political elites may feel compelled to co-opt support from the rural poor; and, third, by determining the general capability of the state to make decisions based on its internal processes and

ideology, rather than on interest group pressure. (22)

Among the greatest influences bearing on the political significance of the poor is the degree of pluralism or democracy in a country. Democracy determines the level of popular participation in governmental decisionmaking, and so conditions the extent to which non-elites are able to influence policymakers through electoral pressure. The dimension of democracy, or democratic participation, is perhaps the most widely analyzed aspect of political processes within the political science literature. (23) This analysis of political structure has proceeded along several lines; for example, military regimes have been contrasted with "competitive" political systems, and "polyarchies" with "command" systems. Cleaves (1980:282-287) has introduced a general distinction between "open", "closed", and "intermediate" political systems, in terms of their degree of pluralism. In a useful attempt to disaggregate this overall concept, Adelman and Morris (1967) examined a variety of related factors such as centralization, press freedom, interest group access, and labor union strength in addition to the more traditional concern with political party effectiveness. This body of analysis has revealed some relationships between the level of democracy and public policy outcomes, but in general, political structure has provided little explanatory value. Analysis of specific regime types, such as military government, also shows few significant relationships to health and other social policy outcomes (Leichter, 1979:94; Verner, 1979). The relationship of a democratic system to PHC and similar policies has been studied in several comparative settings. In his study of Central American regimes, for example, Bossert (1982) attributes adoption of PHC policy in Costa Rica partially to its democratic regime and to the voting power of the rural poor.

At the risk of some loss of precision, we use the term "democracy" to refer to the relative pluralism or "openness" found in a political system. This definition is operationalized in terms of a clear lack of government repression of lower-class voting--by intimidation, fraud, or constitutional measures. Further measures might include alternation in political party competition for lower-class votes, the relative independence of the legislature as a policymaking arena, and the access of lower-class interest groups to executive branch decisionmakers. The presence of functional democracy may be predicated on the existence of formal democratic institutions, but it does assume that

(22) For a more ample and detailed discussion of regime characteristics applied to Central American cases, see Bossert (1982).

(23) See, for example, Huntington (1968) and Huntington and Nelson (1976).

the participation of the poor exerts some influence on policymaking. In general, it is proposed that:(24)

14. The greater the degree of democracy in a country, the more likely it is that PHC and related policies will be adopted in response to demands registered through lower-class political participation.

Within democratic regimes, the political status accorded to the poor population for ideological or other reasons may clearly be expected to influence the adoption of PHC and similar policies. Particularly in countries with highly representative electoral systems, simply the relative "weight" of the rural population--the share of the national population living in rural areas--is likely to bear on legislators' policy choices. Support of the political party in power by the rural population is a more common avenue by which political significance, and its benefits, is obtained. Political strength in any system will also be enhanced by the presence of special relationships between officials and specific population groups. Such ties can be based on religious, ethnic, or other shared identities. Party support is often maintained through communal ties as well. (25)

15. In a democratic regime, the greater the electoral weight of the rural population, the more likely it is that PHC or other policies targeted on that constituency will be adopted.

These general trends, however, may be qualified by several mediating factors. Even in countries with considerable lower-class participation, there may exist a variety of barriers to the effectiveness of democratic processes. Possible direct barriers include local elite influence over voting behavior in

(24) This hypothesis does not indicate that authoritarian regimes will be less likely to adopt PHC policies (see the discussion of the autonomy of the state, below). It does suggest, however, that democracies are more likely to respond to lower-class interest pressure than are authoritarian regimes, which are more likely to respond to ideological motivations for reform.

(25) The health care literature has rarely examined electoral influences on health sector policymaking. This is understandable, in view of the multiplicity of other effects which have more obvious and specific relationships to health policy. Electoral, communal, and party influences on policy have been widely studied in the general literature of political development.

patron-client systems, and outright elite "capture" of lower-class political groups. (26) Traditional culture may also place restrictions on the voting behavior of the poor. The presence of such barriers limits the analyst's ability to predict what lower-class groups will see as being "in their interests", and they make more problematic the assumption that the poor will vote in ways that express their "true" interest (Bossert, 1981). Thus,

16. The greater the dominance of traditional elites and culture in rural areas, the less likely it becomes that democratic participation will reflect support of the rural poor for PHC and other reforms.

The second aspect of political structure that can be expected to influence PHC policymaking is regime stability. Government stability has been one of the central features of regimes that has been studied in the literature on political development. Huntington (1968), for example, includes stability in his definition of "institutionalized political order". Regime stability also often figures as a prominent political variable in aggregate data studies of international political behavior. The concept of stability has many dimensions; for our purposes it takes into account the longevity of the regime, the regularity of leadership changes, and the absence of significant competing elites who violently challenge the legitimacy of the regime. Stability may thus be measured in terms such as the relative absence of gurilla activity and mass mobilizations, and the age of the regime.

The literature on policymaking and policy implementation the Third World suggests, on the one hand, that government instability will inhibit the success of PHC policies, and limit their adoption even in reformist regimes which might otherwise favor them. It is argued, for example, that instability leads policymakers to assume short time horizons, which result in their attention to only the more politically attractive policy areas. Instability is also associated with rapid leadership turnover, and major reversals in policy direction, all of which limit the prospects for policies such as PHC (Cleaves, 1979). The failure of many policy efforts have, accordingly, been attributed to the political and administrative consequences of an unstable political context (Bossert, 1981).

(26) These are particularly likely to be significant problems in regions such as Latin America, which have historically uneven distributions of landholding and power. One indicator of elite strength in rural areas is thus the concentration of rural landholding. Other measures of local political power will be appropriate in other settings.

However, while regime instability appears to have negative effects on the implementation of PHC, the logic for adoption is just the opposite. Regime instability has long encouraged leaders and elite groups to adopt reforms designed to coopt support that might otherwise go to competing counter-elites. For example, health care programs may be targeted to rural areas in which there is potential support for guerilla groups or other anti-regime mobilization. Such policies allow the state to bring benefits to rural populations without taking resources away from powerful local elites, such as would be necessary in extensive land reform programs (Cleaves, 1976). This strategy is likely to be most useful to regimes which have not formerly held reformist policies, and which do not have strong popular participation. This in fact may be among the only conditions under which conservative, nondemocratic regimes are likely to adopt PHC policies. Bossert, for example, reached this conclusion in his study of health policymaking in Central America, finding that the adoption of PHC for rural areas closely coincided with increases in instability in the conservative regimes of Guatemala and Somoza Nicaragua (Bossert, 1981). The depth of commitment to such instrumentally-motivated policy changes is usually limited, however, and the weakened administrative conditions accompanying political instability are likely to hinder implementation under such circumstances. This view on the effects of instability helps to explain the frequent adoption of PHC policies in revolutionary situations, where changes in the power balance lead to efforts designed to expand popular support in rural areas (Cleaves (1980:298). This action by a new government may occur under either conservative or reformist regimes, although most such instances have been under highly reformist regimes, as in the recent case of Sandinista Nicaragua. The new government quickly adopted a policy for rural PHC, but poor continuity and related implementation problems have been experienced over the past two years (Bossert, 1982; Heiby, 1981; Habicht, 1981). As discussed above, the ideology of the regime may either strengthen or weaken the effects that have been described here. The effects of regime instability, then, might be hypothesized differently for the processes of adoption and implementation:

17. Elites in unstable regimes will adopt minor reforms like PHC, while those in stable regimes will be less likely to adopt such reforms.

18. Regime instability will inhibit the effective implementation of PHC.

The final regime characteristic to be discussed here is the capacity of the state. The availability of economic and political resources is an important factor in any country's ability to

carry out PHC, or any policy. This combination of political and economic resources is signified as the "capacity" or strength of the state. (27) In the analysis of regimes, state capacity is found to have at least three aspects: (28)

1. the relative autonomy of the regime from class interests, particularly from the interests of elites in the society;
2. the government's capacity to extract resources from the rest of society, either through taxation or through direct ownership of major sectors of the economy; and
3. the capability of a rationalized and technocratic bureaucracy to carry out or enforce policy choices.

In our application to PHC, the development administration and health policy literatures have used a variety of concepts to represent government capacity. Uphoff (1980:11) discusses the "political solvency" of regimes, based on an economic interpretation of political power; his interpretation focuses on the availability of economic resources, and the degree of political legitimacy of a regime. (29) Haignere (1980) builds on this sense in her identification of the capacity of the state to respond directly to population demands as an "index of development". Also related is Elling's use of the concept of "concertedness", as an aspect of the overall organization of authority in societies. He uses the term to distinguish between "fractionated" and "got-it-together" political systems, which are judged to have different implications for the possibility of health service regionalization. (30)

Recently, Breindel (1980) has identified four indicators of government capacity which he uses to analyze the process of health planning in developing countries: 1) the presence of innovative thinking at the central level; 2) centralized control

(27) In this usage, "the state" refers to the regime in power, and more generally to the public sector and the span of government control in a country (see Bossert, 1982).

(28) The literature on this subject is growing steadily. See, for example, Almond and Powell (1978); Cleaves (1980); Katzenstein (1978); Collier (1979); and Stepan (1978).

(29) An earlier and more general treatment of this "political economy" approach is presented in Ilchman and Uphoff (1969).

(30) (Elling, 1980:106, and earlier works). "Concertedness" cuts across several of the regime-level categories discussed thus far, and was among the first such applications in the health care literature.

over resources; and 3) a structural mechanism to link plans with resources; and 4) the availability of resources which may be differentially manipulated at the center.

One specific area of state capacity to be considered concerns the availability of economic resources for carrying out the policy. As described above, PHC imposes substantial demands on the regime's economic resources. (31) A recent analysis of the implications of instituting PHC systems on a worldwide basis indicate that, while this goal is achievable, the costs could exceed several billion dollars (Joseph and Russell, 1980). Most of these costs are of the recurrent variety, and so would be incurred primarily by domestic budgets. Thus, the availability of economic resources reflects the extent to which PHC or other policies can be realistically formulated; over the long term it is a critical constraint on the prospects of the PHC strategy. (32)

Using the government budget as an indicator of state capacity may be expected to offer a better explanation of the relation between state capacity and health program patterns. (33) Overall,

19. The greater the economic capacity of the government in terms of overall government revenues, the greater is the likelihood of effective PHC policies being adopted.

(31) PHC expenditures in most countries must come directly from the government budget, rather than from private sources. Funding through insurance plans, such as is often done for urban health care (particularly in social security plans for workers), is usually not feasible for PHC. Program support from fee-for-service (which is discussed in a later section) is also of only limited usefulness, because many PHC services are not provided on an individual basis, and because there remains the underlying problem of resource scarcity.

(32) We mention these cost issues only briefly, because they fall outside of the central focus of this project. The economics of health service financing are discussed in a number of sources (e.g., Dunlop and Caldwell, 1976). Specific studies of PHC financing are in very short supply.

(33) This variable may be represented as the proportion of GNP made up by government revenues. However, there are few if any studies that have actually used budget data in relation to PHC policy performance. This indicator faces many of the aggregation problems associated with GNP, but it appears useful as a measure of government capacity. A more appropriate indicator for PHC capacity is the health sector budget, which is discussed in the following section.

Characteristics of state capacity are important to the analysis of PHC policy formulation, because of the emergence of the state as a significant and powerful actor in most countries. In general, governments have taken on major roles in national economies; they have institutionalized more bureaucratic and technocratic processes of decisionmaking; and they have strengthened their ability to repress mobilized populations. They have also often come to play more autonomous roles vis a vis the dominant social classes, a trend most notable perhaps in Latin America. The strength of the state has been used to explain the success of policies that serve to control the lower classes, as well as others (such as stabilization policies) that may adversely affect national elites. Midway between these extremes are distributive policies such as PHC, which do primarily benefit the lower classes. It is clear that a stronger and more autonomous state will be able to direct the allocation of resources with less regard for interest group bargaining. Autonomy from elites is more likely to make the state capable of redistributing resources toward the rural poor. This trend is most likely in states with reformist ideology:

20. The greater the relative autonomy of the state in a country (especially in those with reformist ideologies), the greater is the likelihood of the adoption of PHC policies.

In the current literature on policy implementation there is also a growing concern with the strength of the state. Cleaves (1980) stresses the importance of the accumulation of sufficient power by the government, in order for it to be effective in imposing its will on the rest of society. He suggests that weak states should pursue only policies that are simple (or "unproblematic")--which do not involve major reallocations of resources or require significant changes in population behavior. As described in Chapter I, PHC is a relatively "problematic" policy in these terms. We have also seen that, because of the short-run nature of its principal political benefits to the state, PHC may tend to be dropped where there is not the capacity for the government to support the long-term costs of the policy. Thus, for regimes that have limited capacity, a common solution to these problems is to lower the scale of the program effort (Cleaves, 1980:293). We may generalize:

21. Strong, autonomous states are more likely to implement efficient PHC programs.

These hypotheses relating to regime characteristics must be considered to be extremely tentative. Studies of regime impact on policy are still in a rudimentary stage, and considerable em-

pirical research is necessary to expand upon some fruitful, initial studies in this area. Furthermore, as Bossert has found in his study of Central America, regime characteristics are likely to influence each other in ways that make some of our hypotheses contingent upon others. For instance, counter to expectations, unstable regimes are likely to adopt PHC only if the regime has a status quo ideology. Those unstable regimes with reformist ideologies may consider PHC to be too minor a reform to implement. Indeed, it is suggested here that all the hypotheses, especially those at the regime level, should be examined for potentially contingent effects. Where appropriate, we have attempted to indicate where such contingencies are most likely to occur.

Policy implications of these hypotheses, in light of the above statements, must be regarded as suggestive, rather than compelling. We suggest that USAID consider three types of strategies appropriate to three different categories of regimes. Regimes with strong, democratic structures and strong states should be judged to be in need of "seed money" only, because they are likely to be able to adopt and continue support for PHC without continuing donor support. By contrast, AID should avoid promoting PHC programs in those regimes that are least likely to adopt and implement such programs--especially weak, authoritarian, and stable regimes. Support should be focused on regimes in which stability is threatened, the capacity of the state is weak but growing, and democratic structures are emerging. These regimes are most likely both to need external support, and to make a serious commitment to implementing PHC reforms.

3. Institutional Bargaining in the Health Sector

The relation of the health care system to the rest of the national political system may have bearing on a variety of factors related to the adoption of PHC. For instance, the importance of health among national priorities may mean that considerable resources will be available to the health sector. Secondly, decisions about how to allocate health resources may be made within the health sector itself, or they may be imposed on the health sector by the rest of the national political system.

Governmental institutions, especially those with health-related responsibilities, may also exercise influence on the policymaking process in ways that would facilitate or inhibit the adoption of PHC policies. In many countries, certain services which are not strictly considered to be health care, but falling within the broad definition of PHC, are the formal responsibility of other governmental sectors and are provided by agencies other than the Ministry of Health. As introduced through the concept of "health-related provisions" above, examples are services such

as water supply, and nutrition. Water supply and sanitation programs, usually administered through public works agencies, are probably the most prominent instance of this, in terms of scale.

Several other types of services that are closely related to PHC may also have been established, and come to be implemented, under special organizational arrangements. Nutrition programs, including food distribution schemes and feeding programs, may be implemented by the Ministry of Agriculture, often jointly with the health ministry. Family planning policies are usually carried out by the Ministry of Health, but frequently through a separate division of that agency. Each of these services constitutes a further point of introduction for PHC, via both administrative constituency and program infrastructure. (34) The extent of these programs related to PHC can be measured in appropriate terms, e.g., the availability of piped water as an indicator for water supply; measurement difficulties similar to those for health services may clearly be expected. Overall,

22. The introduction or expansion of PHC services will be facilitated by the presence of programs in other sectors which are related to PHC, such as water supply, nutrition, and family planning services.

(34) Existing programs may also complicate the introduction of PHC. In the case of family planning programs, adverse popular reaction has been found to inhibit community demand for PHC services, particularly if the two programs are provided together (Banerji, 1974). Implementation problems can also arise by "contamination" from difficulties in existing programs. On balance, however, the weight of influence from current services is judged to be positive. It is important to note that the PHC strategy does not require that all of these services be carried out together, in whole or in part. As described in Chapter I, the range and means of providing these related services will be determined by the situation of any given country. The health service components of PHC may thus be conducted separately from water supply, nutrition, etc., or they may all be integrated to some degree. The policy implications of these arrangements are probably not as important as is that of the "demonstration effect" of their presence. However, spreading the full range of PHC activities over several sectors is likely to increase the political feasibility of the entire effort. Particularly if central government commitment is weak, other agencies might successfully resist the channeling of all rural health-related funds to the health ministry if they did not receive a share. More generally, the objectives of a "balanced" de-

A number of services for the rural population falling within or related to PHC are often consolidated under a ministry or special agency for rural development. Integrated programs of this nature are usually found as an outcome of targeted rural development plans. Such an existing set of integrated activities may represent a highly favorable setting for the expansion of PHC, because of the consolidation of interest and infrastructure, and the indication of significant government commitment to rural services. The political advantages of integrated arrangements are likely to be substantially less, however, if the requisite linkages have not been in place for long or if they are not supported by adequate resources. Along with the predictable implementation problems in these cases, resistance to a possible loss of administrative control by the parent agencies and a lack of experience in coordinated planning can be expected to limit any gains to policymaking from integrated structures. It may be proposed,

23. A well-established rural development agency or other intersectoral program is likely to be favorable to the adoption or expansion of PHC.

The predominant interest in competition with PHC for health agency resources is usually that representing urban, hospital-based curative services. Broadly, this interest is reflected on the "demand" side by the political strength of the urban population served by the MOH, and on the "supply" side by the values of physicians and agency decisionmakers, as well as most existing hospital services. Inequities in the coverage of national health systems have been described in the literature, as described earlier. A number of distinct perspectives may be found, but there tends throughout to be a strong consensus concerning a characteristic bias towards service for urban groups (e.g., Roemer (1976)). The perception seems usually justified that increased funding for rural health services comes at the expense of urban care, to at least some extent. Cook (1976), for example, considers that expansion of rural health care has led to substantial decay in the quality of urban health services of many developing countries. Under conditions of continuing resource scarcity, this tradeoff is likely to remain very real. (One option for PHC is, of course direct funding from external sources, but, as discussed below, this avenue is not viable for the long-term support of recurrent program costs). The assessment is made that there will remain quite active opposition to the expansion of rural care in the internal competition for MOH funds. Thus, a preliminary indicator of the resistance likely to be faced by PHC is the share of the health agency budget going for urban hospital

velopment strategy are usually better served by a broader sectoral distribution of strategic programs (Joseph and Russell, 1979).

services.(35) In general,

24. The greater the share of the MOH budget going for urban-based hospital care, the greater will be the level of intra-agency opposition to the expansion of PHC.

Pressures for urban health care may also be generated from other governmentally-provided health services. The principal instance of this is found in the presence of Social Security or other systems offering health care under insurance coverage to urban workers. Labor unions may thus represent a source of interest group support for these services, and so add to the constituency opposed to shifts in health care priorities. This can be the case, despite the fact that PHC funding is not drawn from health insurance sources, due both to the values operative and to misperceptions over the budgetary structure. Issues relating to social security have been examined in the health care literature, particularly that prepared through the International Labor Organization (e.g., Vukmanovich and Mach, 1977). However, there has been little explicit consideration of the effects of such intra-sectoral pressures on PHC. Among the few possibly relevant studies, Roemer and Maeda examined the influence of Social Security expenditures on the budgets for public health services in 17 Latin American countries. They found no significant intercorrelations, and concluded that the effects of any competition were minimal (Roemer and Maeda, 1976). A published response to their study contested the validity of their evidence, however, and drew an opposite conclusion from the evidence.(36) Overall, the

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- (35) This measure complements the one mentioned earlier of the existing share going for PHC-related services, although the two do not exhaust the MOH budget. Estimates of MOH hospital funding are usually available from budget data (Bossert, 1981).
- (36) Segovia (1977) pointed to the many actors in the policy process surrounding public health funding, and to the limitations of using budget data alone for this analysis. Interpreting the position of Social Security as one of being manipulated by physicians in the pursuit of curative-care interests, he concluded that insurance systems are in fact likely to weaken support for public health programs. The original authors replied, acknowledging the political elements in the budgetary process, but emphasizing that Social Security actually strengthens the role of health services in the policy arena overall. As with nearly all of the policy relationships addressed in this review, the questions raised by this exchange can only be addressed by reference to country-specific information. Yet information is limited, and yet even fewer analyses have been performed in these areas.

potential influence of Social Security agencies in opposition to rural health care should probably not be discounted. In the absence of any resolution on this issue, we tentatively set out the hypothesis:

25. The presence and strength of a national Social Security or other urban health insurance plan is likely to strengthen opposition to funding for PHC.

Another indicator of the environment for PHC is the size of the public health sector budget. This includes the budget of the Ministry of Health, as well as those for the health activities of other government agencies. Following the line of our discussion of national "capacity" for PHC, this measure (the proportion of the government budget going to the health sector) may be seen to reflect both the relative status of the health sector in national policymaking, and the organizational "space" for expanding health services to rural areas. In this view, differences in budget shares for health may indicate differences in the importance accorded to health care in government policymaking, and so summarize the significance of health care interests in the competition for additional funds. A larger health sector might also imply that PHC may face less internal competition for health agency funds, out of a given health "pie," although the dynamics of budgetary processes in most bureaucracies do not indicate that this is frequently the case. In all, the interpretation of this budget measure is subject to notable difficulties. (37) However, we set out the preliminary hypothesis:

26. The greater the share of the government budget going to the health sector, the greater are the prospects for the adoption and implementation of PHC policies.

The actual distribution of health sector resources is likely to serve as a better indicator for PHC policy. Specifically, this measure is concerned with the levels of economic and

- (37) The presence of substantial intercountry variations in the nature and division of health sector responsibilities makes comparison highly problematic. In addition, problems of data collection and addition, problems of health sector data availability and standardization raise serious questions about reliability (Bossert, 1980). As described above, however, expenditure measures have been used in a number of cross-national studies of health services and health status. We consider that the health budget share may serve as a rough indicator for purposes of this project, but that it is no likely in itself to reveal a great deal about decision-making for PHC.

physical resources for health care, and their allocation among types of service and groups of beneficiaries. It is expected that the prevailing allocation of resources will reflect the probable direction of incremental policy change; a broader current distribution could thus imply that there would be continued attention to rural populations. The concept of distributional equity has been used in some studies of health policy and national health status, although with limited results. (38) The principle of socioeconomic equity is clearly relevant in the examination of PHC, as has been discussed earlier. This broad measure of distributional equity is also appropriate, since the services identified by Haignere are all closely related to PHC activities. The concept remains at too high a level of generality for purposes of this analysis, however, and we must look more closely at specific types of "health provisions", and the particular groups that are served.

Existing services of the health ministry oriented towards the PHC target group are perhaps the most important element of the policy and program setting for PHC. These services are broadly defined as including all government health programs for the rural poor, such as public health measures; "basic health services" provided through rural health centers and health posts, usually staffed by physicians; and actual PHC-type operations of the type described in Chapter I. Most of these programs are provided through the health ministry, although some may be administered by other agencies. The presence of such services offers a potential "foot in the door" for further or more comprehensive PHC efforts. This consideration is significant because, as is frequently observed, policy change is fundamentally an incremental process (e.g., Leichter, 1979:273-274). There are circumstances, such as after revolutions, in which governments may indeed effect radical shifts in policy direction. Such instances are notable as exceptions, however; patterns of policy are, overall, guided by recent history. This is especially true in regard to the implementation of policy, due to the conventional, and intentional, rigidity in priorities and procedures that are found in administrative bureaucracies. Existing policies and programs form a natural constituency for further programs of the same type. They also, especially if their experience has been successful, establish a base of infrastructure and client utilization which may be adopted for use by new or additional programs. As is well known, this

(38) Haignere, for example, incorporates the "distribution of health-related provisions" as a possible predictor of health outcomes, in her four-country study. She divides "health-related provisions" into nutrition, housing, sanitation, and medical care, then separately assesses national patterns of distribution in each of these areas. However, she finds few significant relationships between the distribution of these resources and national health status.

constituency of functionaries and clients can act, often after a "critical mass" is achieved, as a powerful force for program expansion. Measuring the extent of existing services involves some practical difficulties, but is conceptually relatively straightforward. (39) Thus, we hypothesize,

27. The greater the share of the current health agency budget going for PHC or other services for the rural population, and the higher the rate of increase in this share, the greater is the likelihood that PHC can be expanded.

Finally, the activities of a range of non-governmental organizations (NGOs) may also enter into the decisionmaking process for PHC. (40) NGOs have contributed to the development of PHC in different countries, through a variety of means. Most commonly, they have provided health care services which may form a base for later governmental programs, often in the context of organized local initiatives on the part of the rural poor. In the past, the health services of NGOs (such as churches) have been major sources of care in rural areas. To the extent that these services are integrated into the government health system, they may be a starting point and resource base for the expansion of PHC, although integration may in many cases not be desired. (41) NGO health projects have also frequently been used to demonstrate or

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- (39) The comparative level of existing rural health services may be indicated simply by the share of the MOH (or other agency) budget that is expended in rural areas. Trends are thus reflected by changes in this budget share. Determination of the health budget proportion going to rural areas presents frequent problems, however. Agency budgets are not typically organized to provide this information, and the reliability of expenditure data is usually open to question. Yet, as Bossert (1981) has shown, useful estimates for these measures can be obtained through careful examination of budget detail.
- (40) NGOs can be local or regional, national, or international in scope. The role of international actors is discussed in a later section.
- (41) In the first place, health ministries have not always encouraged this integration. Church-sponsored services, for example, are often excluded from government systems of health planning and resource allocation, which may weaken this mode of care (Hartwig, 1979). In addition, local health services have often not been oriented towards coordination with government health systems. Paddock (1975) and others have criticized the inefficiencies of PVO-sponsored

test alternative models of PHC, with government support. (42) Through these various means, NGOs may expand the resources as well as the constituencies for PHC; in all, however, the influence of NGOs on PHC policymaking has not been systematically or comprehensively examined. To summarize,

28. The greater the degree of NGO involvement in rural health services and other aspects of PHC promotion in a country, the greater is the base of support for adopting or expanding PHC.

In conclusion, the bargaining model appears to be an appropriate one, not only for the broad political forces of elites, beneficiaries, and physicians (as discussed earlier), but also for the political interactions of different agencies in the health sector. As one important implication, actions to increase the funding and organizational and bargaining capacity of other rural development agencies, while decreasing the power of urban-oriented health services such as Social Security, are likely to greatly strengthen the voice of advocates of PHC, and increase the chances of policy adoption.

D. The Planning Process

In the above analysis the development of a health plan with significant commitment to PHC has been described as one indicator of the successful adoption of PHC policy by a national government; a measure of the end of the formulation stage of the policy process and one which shapes the design of PHC policy in the subsequent implementation stage. As such, the health plan has been described as an output of the formulation stage. However, the specific activities involved in producing a health plan are more appropriately considered as a part of the formulation process itself. The details of the process have been the subject of many studies, both of general development planning (see, for example, Caiden and Wildavsky, 1974) and specifically of health plan-

clinic operations in this regard. More broadly-based local programs may resist government participation or control, in order to preserve their success and avoid being "captured" (Field, 1977).

- (42) See, for example, WHO (1981:11); Pyle (1980). Analysis of PHC options carried out by universities and other institutions has also contributed to the understanding of policy options (Gwatkin et al., 1980). The conduct of pilot projects and their role in the policy process are discussed in sections below.

ning. (43) Most of this literature suggests that the planning process has a significant impact not only on whether PHC will be adopted (which has been our central focus and major dependent variable up to this point), but also on the efficiency and effectiveness of the implementation of PHC. In other words, the process of health planning, more than the other factors that have been examined, bridges the formulation and implementation stages in the health policy process.

In general, planning involves in greater or lesser degrees of realism, the specification of goals, the matching of goals with available resources, and the identification of specific ways of meeting those goals. Over the past several decades, planning has been widely adopted as a means of organizing and directing public action. Particularly in the Third World, governments have used formal planning to guide their approaches to socioeconomic development; consequently, some type of long-term plan is maintained by nearly all countries, and the literature on development planning has justifiably become quite large. National health plans, including those for PHC, represent one component of development planning overall, and serve specifically as a guide for that sector.

The scope of "planning" has been defined in different ways by different authors. Those for whom planning is the central focus of study tend to define the field most broadly, often incorporating functions of plan implementation (e.g., Litsios, 1971; Mott, 1974). One such broad classification of planning activities is set out by Mott (1974:271), in which he identifies the functions of planners as:

- 1) Deciding for some population that some future state of affairs should be achieved (goals), which presupposes some degree of dissatisfaction with the present

(43) The broad dimensions of health planning have been the subject of an extensive literature. Most of this work has actually examined the experience and requirements of planning in Western countries, principally the U.S. and Europe. Recent publications by PAHO/USDHEW (1978) and Family Health Care (1979) have expanded the substantive range of health planning studies to include LDC situations, as have other materials cited in this section. However, few of the many case studies that have been prepared carefully analyze the influence of "process" factors on health planning. We remain at some distance from Leys' ideal of a planning process which "is capable of handling all relevant social processes and structures, and does not consign them to a limbo of unanalyzed 'constraints' or 'obstacles' which, in practice, make the model inapplicable to LDC situations" (cited in Janovsky, 1979:3).

state of affairs on the part of the planners;

2) Considering alternative courses of action for achieving the desired future state, and choosing the alternatives thought most likely to realize the desired future state; and

3) Taking action to obtain the desired goals (implementation).

For present purposes we include only the first two of these functions in our definition of planning. Implementation is treated as a separate set of activities, although planners indeed often participate in them.

While the process of planning is often thought of as basically a national process of matching goals and resources, most analysts now see planning itself as a political process that is best analyzed in terms similar to the "bargaining" model of the general formulation process.(44) As has been seen, policy formulation is in large measure a process of bargaining among competing interest groups, and it may be expected that the outcomes of planning will be meaningful for policy to the extent that planning itself shares this feature. We may then, inquire as to whether planning does in fact incorporate the exertion of influence and bargaining, or whether it is conducted in isolation (Marmor and Bridges, 1977:32). Other empirical research has demonstrated that the nature and outcomes of planning for PHC is strongly determined by the specific political actors that are involved (WHO, 1981:13-14). The linkages among various actors in planning and implementation thus becomes an important element of the planning structure; these must be developed and maintained according to the requirements of individual settings. For example, where the legislature plays an autonomous role in national policymaking and resource allocation, planning should be organized so as to incorporate the views of the legislature into its products. Similar considerations hold for the more directly involved agency actors in health planning.

Central to our concern here is the multiplicity of actors involved in planning, and the range of their objectives and values. Recognition of this principle, and of the pervasive bargaining that occurs in policymaking, forms the basis of the "Transactional Approach" to planning, which has been developed by Warwick (1978) and others. This model, which emphasizes an adaptive route to meeting the needs of a differentiated policy environment, is compared with alternatives, and used to examine health

(44) Mott (1974) and Heller (1975), for example, have outlined the interaction of politics and planning in the health sector. A more structural approach to explaining the determinants of the planning process is found in Caldwell and Dunlop (1979).

planning in Kenya by Janovsky (1979).

In all, these various analysts have focused on the actors involved in health planning, and their respective influences and strategies; on the subjects and nature of debate during the planning process; and on the relationship of these factors to the features and outcomes of planning (Mott, 1974:272). Viewed as a political process, health planning represents a microcosm of the larger political processes we have discussed as impinging on the formulation of PHC policy. The practical aspects of this point are summarized by Smith (1979:43):

"Assessment of the sociopolitical environment in which the planning will occur and in which the program will be developed must consider: the existing government policy and priorities in health; the aims and limits of the planning effort expected by government leaders, and the degree of support that can realistically be expected from political leaders during planning and implementation... It has been demonstrated repeatedly that in the absence of a clear understanding of overall political intent, planning is fruitless."

In view of the close relation of planning to the political process, it is not surprising that many of the principles of effective PHC policy formulation discussed above are seen as prerequisites of successful health planning by writers on this subject. Warwick (1978), for example, offers as "facilitating" conditions for planning and implementation such factors as examination of the power setting and operating environment, commitment of top leaders, organizational capacity, commitment of implementors, and interest group support. Similarly, Dehasse (1978) sets out a series of "antecedents for planning," among which are the identification of the policy process of implementing institutions, consideration of organizational capacity, and institutional willingness and commitment to implement the plan (cited in Janovsky, 1979:125). Other analyses of the planning process also discuss structural factors such as ideology, political organization, and government capacity in these two perspectives: as setting the background for the planning process, and as determining much of the potential success of the planning effort (e.g., Caiden and Wildavsky, 1974; Janovsky, 1979). Thus, while the effectiveness of planning plays a central role in the formulation and implementation of PHC policy, the favorableness of the environment for PHC influences the likelihood of effective planning; planning and policymaking are mutually dependent.

The literature relating political context to effective planning suggests a variety of hypotheses which are of use in the present analysis. The first set of hypotheses concerns the importance of planning in the general political process--i.e., the

"fit" between planning and political regime. The second set focuses on the inclusion of critical political actors in the planning process. The final set examines the institutional capacities of the Ministries of Health and Planning to carry out the technical tasks of planning.

A central premise in this analysis, which is largely unverified, is that more effective and rational planning will generate greater national policy emphasis on PHC. It is assumed that, although planning is indeed a political activity, the logic of fitting resources to goals will push the process toward a more "rational" allocation of health care resources, and that PHC, for reasons described above, is a more sound use of these resources. Some support for this premise is demonstrated by the substantial commitment to PHC that is found in most national health plans. While it could be cynically argued that these "rational" health plans are drawn up chiefly to attract international donors--and are therefore only part of a larger political bargaining game--nevertheless, it seems appropriate to believe that if there is a greater commitment to rationality in planning, the prevailing "technical" rationality (e.g., PHC currently, hospitals in the past) will be given more weight.

Formal planning is used by governments to different degrees, as a tool for directing the national economy relative to the workings of "the marketplace". At one extreme, central planning may be used to guide the activity of major segments of the economy, while at the other extreme planning may be simply a means for supplementing the natural forces of the market. Most countries fall somewhere between these poles of "imposed" and "demand-induced" categories (Heller, 1975). In this view, the underlying role of planning determines to a large extent the level of resources that are devoted to it, and the type of process through which it is conducted. We may broadly expect that health planning will be more extensive in countries relying to a greater degree on centralized planning, because of the existence of planning mechanisms in these settings and the existing use of planning for policy activities. Although there is little direct evidence on the relation of health planning to national planning, it is likely that PHC will be included in planning efforts where health care is already planned on a large scale. We might hypothesize:

29. Planning for PHC and other health care activities will be more extensive, the greater is the reliance on central planning of the economy.

There is some reason, however, to expect that the opposite relationship is true for certain types of regimes. Even in the case of market-directed economic systems, however, planning may

be used as a means of reallocating resources to meet objectives that would not be achieved through market. We have seen that the goals of PHC are commonly not implicit in prevailing social and health care systems, for a variety of reasons. Planning may serve to incorporate these goals within government strategies, without requiring major changes in socioeconomic patterns. Due to the overall lack of relevant literature, there is little basis on which to clarify the relationship of health planning patterns to regime type.

Field (1981) has made an exploratory examination of the role of nutrition planning in different country contexts, which is highly applicable to PHC as well. In this study he identifies nutrition planning as being especially useful in regimes with "conventional" ideologies, as a means of rationalizing incremental changes in the direction of greater equity. "Planning" may in this case become a distinct strategy for socioeconomic development. (45) Whereas regimes following "alternative" or reformist strategies are likely to pursue policies for rural nutrition and health care as elements of their value orientations, a different sort of rationale is required in "conventional" regimes. "Communist" (or "radical") regimes also do not need to rely on planning mechanisms to justify development activities, although the planning function of course remains important, here as elsewhere. (46) Kerala State in India, Sri Lanka, and Guinea Bissau are among the examples offered by Field of countries making use of the "planning strategy" to effect nutrition improvements. It is in cases such as these that planning may be expected to have its greatest relative influence on progress towards PHC and other basic needs policies. We hypothesize,

(45) The "conventional" and "alternative" strategic orientations described by Field correspond closely to the "status quo" and "reformist" ideologies which we have adopted here.

(46) It may be seen that the differing values attached to health care in development clearly affect the rationales used in planning for PHC. In their study of health planning in Africa and Latin America, Caldwell and Dunlop identify a range of "objective functions" for health care which may be included in national health plans. A majority of the plans in their sample included the goal of "expanding health services--particularly rural health services" (Caldwell and Dunlop, 1979:77). These results show little variation among regions or degrees of national income inequality. It is not possible to determine from this information the actual priority assigned to PHC in these countries, so that a more detailed examination of health plans is likely to be necessary to clarify the relationship of planning objectives to actual government goals.

30. In status quo regimes, where central planning is of minor importance to the national economy, major efforts in health planning may result in greater emphasis on PHC policy.

Having considered the implications of a general national commitment to planning, we may turn to examine the actual dynamics of the health planning process, and their relationship to planning effectiveness. One widely observed determinant of the realism and success of planning is its linkage to, and consideration of, the resource allocation process. As noted above, the analysis of resource allocation alternatives to achieve health system goals is a major function of health planning. We have suggested that PHC should be favored in a planning process that wishes to extend services within severe budget constraints. However, a number of studies have pointed to a general lack of attention to financial concerns in most health planning exercises. Clinton (1978:125), for example, notes that the WHO-sponsored Country Health Programming model, among other planning approaches, had not in the past incorporated any financial analysis.

The JCHP study amplifies this point, and discusses two principal deficiencies of the conventional "programming" approach to health planning: first, it tends to introduce resource considerations into plans only as a constraint, and so often ends up anticipating more resources than are actually available; and second, it fails to provide an adequate framework for planning specific program resources, in terms both of materials and of their distribution among regions and programs. The report goes on to propose an alternative approach that recognizes the central role of resources and so begins with an analysis of their availability (WHO, 1981:34-35). The report argues, "...what is needed is to plan and program the provision of PHC resources in their own right. This requires an additional planning framework, one that begins by analyzing the existing allocation of the country's total health care resources... Then, on the basis of any health care legislation which may be necessary, it plans future resource allocations to PHC in relation to higher levels of care, and programmes the distribution of these resources to reduce inequalities in health care expenditures per head in different parts of the country... [Resources] can--and need to be--planned specifically as the principal determinant of PHC implementation." As noted earlier in this report, data on existing allocations of health resources is usually not readily available in most developing countries, making this approach more difficult than it might appear.

Based on the experiences of Finland and Papua New Guinea, the study favorably notes the use of methods for guiding resource allocation for PHC, including "central government grants that are

made available for projects and activities only if they are compatible with the overall aims of government policy; and formulae built into the planning process which ensure that financial allocations are weighted in favor of less developed regions, or of programs serving disadvantaged groups." Yet, "in most of the study countries, as in many others in the world, such mechanisms remain rudimentary or do not exist at all." (WHO, 1981:15-16).

Some authors have recommended that any reform of planning concentrate on improving its relation to the budgetary process; this was a major thesis emerging from Caiden and Wildavsky's study of planning in developing countries (Caiden and Wildavsky, 1975). One possible means of increasing such budgetary linkages is to expand the planning involvement of central finance ministries, which are usually at some distance from the operational planning activities of other agencies (Clinton, 1978:119). Beyond this, Caiden and Wildavsky suggest that plans be considered "adaptive," or as "statements of intention," to permit the flexibility necessary to respond to unpredicted resource levels and requirements (p. 269). These observations suggest,

31. The greater the linkage of health planning with the budgetary process, the more likely it is that PHC programs will be seen as a rational use of scarce health resources, and the more probable it becomes that PHC will be adopted and effectively implemented.

A second issue regarding the health planning process is consideration of the strength held by the various actors in the process. The literature strongly suggests that a critical condition for planning success, under all types of political arrangements, is that planners be relatively powerful political actors. Power here refers to the control exercised by planners over health care resources: planning is likely to have greater significance where its outcomes are tied to resource allocation. Marmor and Bridges, for example, relate the effectiveness of health planning to whether planning is the project of a political office empowered to make authoritative choices. As discussed earlier, Breindel (1980) identifies the capacity to manipulate resources at the central level as a prerequisite of successful planning. In the absence of such capacity, and the degree of government commitment that it implies, planning may even have negative impacts on health programming. (47)

(47) Caiden and Wildavsky cite several of the problems that are likely to be caused by planning in these circumstances. Most importantly, it may become a substitute for action, pursued for its own sake while draining scarce human resources. The lack of planning authority also reinforces tendencies to concentrate on larger projects, which are usu-

The government agencies typically responsible for health planning are the Ministries of Health and Planning. Health ministries are frequently not politically powerful, and they usually do not have authority to determine aggregate resource flows; in contrast, central planning agencies generally have greater resource control, and tend to be more involved in executive decisionmaking. The budgetary role of planning ministries varies between countries, however, as does their technical capacity. (The strength and importance of the planning ministry may be measured by several means, including the size of the MOP budget, the size of its staff and their levels of training, and the longevity and growth pattern of the agency.) (48) This is, however, not to imply that planning is necessarily best conducted at the highest possible level. In all cases, it remains important that the level at which planning is carried out is one at which the government plays a strong role in health affairs, and where the objectives of PHC are strongly held (PAHO/USDHEW, 1977:68). Each of these factors is likely to condition the influence of a planning ministry on the health planning. In general,

32. The greater the political power of the Ministry of Planning and the greater its role in health planning, the more likely PHC programs will be adopted.

A further basic requirement for planning effectiveness is that responsibility for planning correspond closely to responsibility for implementation. It is thus important that the planning process be organized in a way that is congruent to the country's political and administrative systems. Especially for more decentralized or federalized systems, this implies that planning tasks should be delegated to their appropriate levels. Yet, consistent with our earlier discussion, it has been observed that a comprehensive approach to health planning is significant both to the coherence of the strategies that are set out and to the success of the implementation effort. Examining a group of Western countries, Altenstetter (1976:10-11) for example found health care financing, manpower, and health service delivery policies to be better integrated the longer the time that comprehensive health insurance had been in place. In the developing world, Siddiqui cited the absence of a country-wide health plan as one of the major causes of problems in the health services of

ally favored by policymakers. Despite the fact that planning may still serve certain latent purposes, such as meeting the requirements of international assistance agencies, the overall effects of planning in such cases are likely to be undesirable.

(48) The descriptive elements of these data must probably be obtained through interviews or country case materials.

Pakistan. He considered this situation to be related to the political fragmentation of the country as a whole, and to be a direct outcome of its federalized structure (Siddiqui, 1978). Clinton (1978:119) also discusses the case of Pakistan in this regard, pointing to the problems in combining the outputs of a number of individual health plans developed at the state level.

Much of the treatment of centralization in earlier sections is thus applicable to the planning process as well; planning for PHC in particular is likely to be weak where it is a primary responsibility of state governments (PAHO/USDHEW, 1977:10-12; Leichter, 1979:55). Health planning is clearly likely to be more coherent in countries in which it is "not too fragmented or disintegrated, that is, in which the health planners have a fairly common point of view and fair control of the planning processes" (Mott, 1974:273). As will be discussed, health planning still tends to require substantial administrative capacity at lower levels. In general, however,

33. The greater the degree of centralization in a country's political system, and the greater the centralization of the planning process, the more likely it is that planning will result in the adoption and effective implementation of PHC.

Turning to the specific institutional actors involved in the health planning process, we find evidence of considerable inherent conflict. Habicht (1981) and others have stressed the need for compatible objectives among all participants in PHC; however, a number of observers have pointed to the barriers to achieving this state of affairs. Clinton (1978:119), for example, describes the fragmentation that typically occurs in health planning between ministries of finance, planning, and health, in regard to their diverging foci of cost, productivity, and service provision. As Janovsky (1979:4-5) notes, there are few available studies of the organizational processes and the roles of various operating agencies in planning for health, as well other sectors; her own study examines the resolution of differences between ministries of Health and Planning in the preparation of a national health plan.

Mechanisms have been proposed for mitigating these difficulties, such as through the establishment of a national health planning body, but to date these have not been widely instituted. WHO has been especially active in advocating "high-level national forums" for health planning, which might be constituted as "a Cabinet or Party Committee, or a broader-based National Health Council, in which representatives of a wide range of organizations participate together with government ministers or senior civil servants" (WHO, 1981:13-14). Alternatively, this has been

designated as a "national health development network" (WHO, 1979:5). Few countries have adopted this approach, however, probably owing in some part to the problems of coordination in nearly all political settings. Of the seven countries included in the JCHP study, only Costa Rica and Democratic Yemen had developed such a central council, and in the latter case it was an outcome of the study itself.

There is a clear need for further research in this area; in general, it appears that

34. The greater the degree of institutional rivalry in the health planning process, the less likely it is that planning will effectively influence the adoption or implementation of PHC.

A second aspect of the relationship of planning to concerns the representation and participation of the national population. Several reasons are advanced for greater popular participation in the planning process. First, it is important that some measure of the demand for proposed policies be included in the planning exercise, so that the appropriate scale and resource requirements of programs can be effectively determined (Dunlop, 1978; Heller, 1977). Secondly, studies of policy implementation have shown that an accurate understanding of beneficiary needs, and a responsiveness to those needs in program design, are essential to the eventual success of any intervention (e.g., Perlman, 1980). Popular support for the policy in question is also likely to be enhanced through this means, since planning is in most cases the best available avenue for beneficiary participation in policymaking. There are a variety of means for aggregating public interests for representation in planning, although most of those which are widely used in developed countries (e.g., consumer organizations, ombudsmen, etc.) are not commonly feasible in the Third World. Mechanisms of beneficiary participation in health planning usually involve a series of special community meetings with representatives of the Ministry of Health, often including unions, political party officials, and PVO's. We hypothesize,

35. The greater is the degree of participation by the beneficiary population in the planning process, the more likely it is that PHC will be adopted and effectively implemented.

Closely related to the two preceding points is the issue of "planning from below." Despite its advantages of efficiency, centralization may contribute to a separation of planning from reality where lower-level inputs are not adequately included in the process. Local health priorities, the activities of local

health agencies, and regional variations may not be brought into national health plans, or they may be dominated by central-level concerns, unless specific measures are taken for their incorporation. It is apparent, however, that formal mechanisms must be in place before this can be effectively carried out (WHO, 1981:17). In addition, public participation may also be facilitated by low-level planning, although this is not always the case.(49) The difficulties of organizing local planning efforts, and their conflicts with centrally-held priorities have led to a situation where the great majority of countries rely almost exclusively on a "top-down" approach. Caldwell and Dunlop (1979:77) found in their study, for example, that "only 3 of the 27 countries (11%) used information derived from individual participation at the 'grass-roots level' and examples of this kind of planning are only among African countries." Results from a broader sample of countries, including some in Asia, would be likely to be similar.

There is at present little data on the effectiveness of inputs made into health planning by state-level bodies, particularly in federalized systems. While in the long run a balance appears to be necessary between "top-down" and "bottom-up" planning, which would systematically include both central direction and local initiatives, significant efforts to increase lower-level participation in the planning process would likely improve the implementation of programs (PAHO/USDHEW, 1977:58-59). Tentatively, we hypothesize:

36. The greater the degree of lower-level responsibility in planning processes, the more effective will be the implementation of PHC.

Because the Ministry of Health (or other agency responsible for rural health services) is the predominant actor in the administration and operations of PHC, it also plays the central role in PHC planning, and so is the focus of most of these considerations relating to the planning process. A central aspect of health ministry capacity for health planning concerns the agency's relevant technical capabilities. It seems likely that greater technical capacity will be associated with a stronger role in planning, as well as providing operational benefits for resource direction and program management. The duration of planning and the size and training of planning staff offer an initial

(49) Bjorkman (1979:11-12) discounts this "myth," pointing out that local health agencies are frequently more susceptible to co-optation or "capture" than are central agencies, and that locally-directed participation may in any event be incompetent. He refers chiefly to Western experience, but these points hold at least as strongly for the developing world.

measure of this capacity.(50) The duration of planning and the size and training of planning staff offer an initial measure of this capacity. The use of specific analytic techniques is also important to the quality of health planning. The technical literature on health planning describes a number of methods useful for policy analysis, ranging from simple stock-taking to systems analysis and other types of operational research (e.g., Reinke, 1972; Clinton, 1979). It is probable that the appropriate use of these various techniques will enhance planning effectiveness. Based on the available research, it appears that few of even the more basic analytic methods are consistently employed for health planning in developing countries.(51)

These findings underscore the need for data which may be used to expand analysis in health planning. Available evidence shows that planners generally have only limited information for use, primarily on health care resources, and little in such areas as population health status and service utilization (Caldwell and Dunlop, 1979:79). Similarly, Litsios (1971) and PAHO/USDHEW (1977:39) cite the low quality, inconsistency, and poor specification of most health planning data in developing countries. Breindel (1980:11) concludes that when the technical capacity for policymaking is low, health planning decisions will be based on "political rationality" alone. While we by no means discount the role of politics in health planning, it is evident that a lack of technical capability may limit the usefulness of any resulting plan. We propose that,

(50) The relationship of health planning to agency programming and evaluation is discussed in the following chapter, as these are primarily administrative activities. The significance of planning and budgeting for PHC implementation are also more fully addressed below.

(51) Caldwell and Dunlop (1979) examined the application of eight different analytic approaches to health planning in their study of African and Latin American countries. Results showed that manpower and priority analysis were the only methods used in over half of their 27 countries. Cost studies, projections, and the consideration of externalities were carried out in only a moderate number of countries, and more thorough economic analysis was performed in few countries at all. Countries in Africa, particularly those with more concentrated income distributions, adopted significantly more of these approaches than was the case in Latin America. The authors pointed to inadequate data, lack of sophistication among decisionmakers, and the presence of alternative priorities as possible explanations for this record (pp. 77-79).

37. The greater are the administrative, analytical, and data resources for planning within the health ministry or other relevant agencies, the more likely it is that planning will contribute to the adoption and effective implementation of PHC.

In this section we have considered a wide range of issues relating to the health planning process, in view both of the importance of planning in policy formulation, and of the multiplicity of factors which impinge on its outcomes. Although planning is conducted with reasonable success in some countries, the consensus of nearly all sources surveyed leads to an opposite conclusion. Because of the many contingencies faced by PHC in particular, this situation is likely to represent a continuing impediment to the development of appropriate health policies and strategies.

To conclude: Health planning focuses attention on the specification of health goals for the entire national population, and it provides national models for attempting to achieve those goals through efficient use of scarce health care resources. For these reasons, it is likely to improve the chances for significant adoption of PHC, and to provide for more effective implementation of PHC programs. Efforts, therefore, should be made to increase the importance of planning in the health sector, to make that planning more responsive to lower administrative levels and the needs of rural beneficiaries, and to improve the technical capacities of health planners in the Ministries of Health and Planning. Toward this end, USAID should promote improvements in health planning importance, responsiveness, and capacity.

A central issue, however, will be to determine the relative importance of planning to the success of PHC programs. Does health planning improve PHC programs more than, say, better management, greater funding for transport, more training, or community participation? This question of the relative contribution of different factors will have to be addressed more directly in the future, when we have a clearer idea of how and how much the factors we are examining actually do appear to influence the success of PHC. We pose this question here, because we are moving from areas where USAID can primarily only respond to opportunities for the adoption of PHC, toward other areas where USAID can make a range of choices about improving implementation. Once a national government and USAID choose to be committed to PHC programs in that country, determination of the most effective means of support requires an analysis of the relative benefits to be achieved by different activities. Health planning appears to be a significant contributor to successful PHC programs. How much more successful it is than other types of efforts is clearly a subject for future investigation.

E. The Role of Foreign Assistance

The final element to be surveyed in our study of PHC policy formulation is the part played by external agencies. These organizations include multilaterals, such as WHO, UNICEF, and other international agencies; and bilaterals, such as USAID and other donors, along with a variety of non-governmental organizations (NGOs). These foreign agencies, whether as donors or as operating intermediaries, provide resources for both the formulation and the implementation of PHC policies. At this point we consider their activities specifically in regard to the formulation functions, although they are also closely related to implementation functions which are described in later chapters. It will be seen that the relationship of external assistance to PHC spans the full range of policy aspects discussed earlier. For example, regime ideology and political organization influence the nature of assistance provided, and the expectations surrounding its presence. Requirements for assistance, and the specific forms which are most appropriate, are determined in large measure by the capacity of the government, the characteristics of the national health system, and the structure of the health planning process. At the same time, each external agency has distinct objectives and modes of operation, which must be brought into correspondence with features of the host country setting. Analysis must examine the "imprint" of each agency, and its implications for different aspects of PHC policymaking. There is a large literature on foreign assistance in development; however, the number of empirical studies of the patterns and effects of foreign aid is relatively small, and the number of those focusing on the health sector is even smaller. Our hypotheses in this section are therefore based on a limited, if diverse, selection of sources.

We begin with the question of the motivation and rationale for assistance: why do organizations provide assistance for PHC, and what can it accomplish in a given country? As pointed out by Dunlop (1978), external support serves essentially to subsidize a government's conduct of a desired policy, where the domestic costs of that policy--in both economic and political terms--may be greater than what the government can afford. In these circumstances, resources provided through assistance augment those of the government, permitting the policy to be carried out through the joint assumption of costs. This leads in the short term to a situation of dependence, in which the program's existence is predicated on the availability of external support. In the longer term, either the policy itself or various exogenous events may generate the resources necessary to maintain the policy if the assistance were to be terminated. Most assistance, particularly for services such as PHC, is in fact intended to cover start-up costs over a relatively short run, with later recurrent operating costs to be borne by the country itself. The resources in ques-

tion, those inputs for which external agencies have certain comparative advantages in providing, are of both direct and indirect types. Direct inputs include primarily financial and physical capital support. Among the more indirect inputs are technical support, e.g., for planning, including staff training, and the generation of knowledge through research and demonstration projects. These types of support may promote PHC policy adoption, in the first place, by improving the technical basis and capability for making policy decisions. More broadly, they may expand governmental capacity and lengthen the time horizon over which decisions are made, which is, as noted earlier, a crucial consideration for effective PHC policymaking (Clinton, 1978). An initial measure of the likely effects of assistance may thus be simply the relative amount and pattern of aid provided over time; thus,

38. The greater is the foreign assistance contribution to financial and technical aspects of PHC programs, the more likely it is that PHC policies will be adopted.

However, it must be recognized that external aid often imposes costs of its own. It may introduce new objectives into the policy process; it may be provided in ways that bias the pursuit of program goals; or it may be perceived as illegitimate by members of the national population--any of these may reduce its overall effectiveness in a given setting. The relative impact of foreign assistance on policy adoption may thus be expected to vary according to its source, to the country's needs, and to the local political setting. The problems of the political legitimacy of aid have been discussed by Uphoff (1980:15), and others. For PHC, these problems are likely to be particularly great where health care is linked to family planning services, which in many countries have been the subject of adverse political response (e.g., Banerji, 1976). Conflicts between the objectives of donor agencies and those of host governments have also been observed. Donors and international agencies indeed maintain somewhat differing conceptions of PHC, and these may be at further variance from government goals in this area. It is probable that all of these considerations will be less significant in countries with fewer domestic resources for PHC, and less internal commitment to the policy. (52) We may thus qualify our preceding hypothesis:

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- (52) This has been observed by Bossert (1981). He cites the case of Costa Rica, in which under 5% of the health care budget was obtained from external sources; this country's government had made a firm commitment to rural health services, and, at least through the late 1970's, substantial domestic resources were allocated for PHC. As discussed in this section, however, research on the relationship between aggregate health aid and country adoption of PHC policies is at

39. The influence of external assistance on PHC policy adoption will be greater, the greater is the political legitimacy of foreign aid in the country, the more congruent are the external agency and government goals for PHC, and the greater the level of country needs for assistance.

For a better understanding of the variations in foreign support for PHC, we must more closely examine the nature of the assistance provided from different sources. Official documents offer the most thorough descriptions of the objectives and strategies of assistance, but this literature is rarely evaluative or comparative in emphasis. (53) The descriptive literature on aid in the field of population and family planning is broader than that in the health sector, but while this is likely to have some bearing on PHC, the policy issues in these two fields are substantially. The following brief summary of the approaches of the largest assistance agencies in health is based on the small number of studies which are specific to PHC (particularly Cole-King (1979) and Bossert (1981)).

* Bilateral Assistance from USAID. AID and its predecessor agencies since World War II have a long history of involvement in health activities, including public health campaigns and hospital construction; development programs in the 1960's, however, reflected an almost total withdrawal from health projects. In the late 1960's, the agency turned to a major focus on population control, which probably further weakened possibilities for health care support. With the passage of Title IX of the Foreign Assistance Act in 1967, which emphasized concern with "the poorest of the poor," and with greater autonomy in the regional bureaus, AID through its Technical Assistance Bureau entered into a period of research and experimentation on PHC-type programs. Since about 1975, a relatively uniform model for rural health projects has been in place, consisting of an initial health planning process, local worker training, support for auxiliary services such as water supply and sanitation, and improvement of logistics and management. Flexibility in this approach has become limited by increased centralization, professionalism, and accountability within AID (Tendler, 1975). The bulk of the agency's health assistance continues to go for project activities, however, which in many cases have entered into government policymaking in the health sector. Other bilateral donors, including SIDA and NORAD, have also tended to focus

present quite limited.

(53) This is not to discount the usefulness of information from official sources. See, for example, USAID, 1978; Bourne, 1979; WHO, 1979.

their support on a limited number of specific projects.

- * Multilateral Assistance: WHO and its regional agencies have had the longest continuous history of involvement in international health activities, varying proportions of which have been oriented towards rural health services. Much of WHO's support goes for technical advisory services and advanced public health training of national personnel, which disperses the agency's influence on initiatives such as PHC. From the 1960's onward, the major policy emphasis in WHO was on health planning. This approach progressed from relatively rigid models (such as the PAHO/CENDES method in Latin America) to the broader mandate of Country Health Programming. Under its growing flexibility, WHO began to move toward support of PHC activities in some member countries. Since the mid-1970's, this support has developed in a number of directions, including the international Conference on PHC at Alma Ata in 1978, which strongly encouraged government commitment to PHC. Other multilateral agencies, including UNICEF and more recently UNFPA, have also actively promoted the PHC approach to health services. In addition, the World Bank and various regional banks are beginning to undertake programs for PHC, often jointly with other agencies, although progress in this direction has been slow.
- * Voluntary Agencies/NGOs: A wide range of voluntary and other nongovernmental organizations have also contributed to the development of PHC, working either independently or with donor agencies. These agencies have focused chiefly on specific projects in their health sector work; despite their small scale, they have often become successful models for health care delivery in rural areas. The flexibility and grass-roots orientation of these agencies, and their frequent internal commitment to PHC-type approaches have in many cases been important elements in this effectiveness. However, mechanisms to capitalize upon the limited scope of voluntary efforts are becoming increasingly necessary.

It is apparent that differing agency histories and objectives have led to a variety of distinct, but potentially mutually supportive, means of support for PHC policymaking. The characteristics and strategies of these agencies make it likely that their respective inputs will have varying significance and usefulness in different countries. Referring the reader to the references cited above for further detail, we may summarize:

40. As long as international agencies converge in their promotion of PHC programs, their individual and collective contribution to the adoption of PHC should be positive.

Data on specific patterns of foreign assistance for PHC in different countries are very limited, and it may in any event be too early to make a reasonable determination in this area. As noted earlier, and as described in the various country case studies that are available (for example, WHO, 1981), governments have made substantially differing uses of external support in their routes to the adoption of PHC policies. It may be expected that assistance funds are, correspondingly, allocated in varying ways among countries. Several broad studies on the allocation of assistance funds generally indicate that aid has been distributed with little clear regularity, although there is an apparent tendency to direct relatively greater aid to countries with moderately high incomes and to those with large populations. (54) The applicability of these aggregate studies to health care assistance, and to support for PHC in particular, is not clear. While health aid is allocated as a part of total development assistance, we have seen that agency orientations toward health care vary considerably, over time and among organizations. Some data on levels of assistance for health activities is available, and a useful if imprecise summary of health care support might be assembled from these sources. (55) Outlays specifically for PHC are likely to be more difficult to determine. Information can be obtained on the projects of individual agencies or for specific programs; for example, Baumslag et al. (1978) shows USAID support for integrated health care projects. Assembly of a complete picture would be problematic, however, because the budget categories

(54) A number of studies have been published which examine the aggregate flow of assistance from different sources. Among these, Loehr et al. (1976) found relatively complex relationships between the distribution of aid from bilateral and multilateral agencies, and country economic and political variables; however, population size was found to be the best single determinant of aid levels over time. Kaplan (1975) also identified a central emphasis on population size, subject to a number of possible intervening considerations, in a study of U.S. assistance to Latin America. In a comprehensive study of foreign assistance from various sources, Isenman (1975) observed a predominant bias toward the higher-income poor countries, which he attributed to a several factors: the use of "development" criteria, which assign a low priority to income inequities, seek to maximize the growth impact of aid, and base estimates of need on growth targets, GNP, and absorptive capacity; and "political" factors, such as donor self-interest, and varying recipient expectations. Given the highly aggregated nature of all of these analyses, their overall statistical inconclusiveness is not surprising.

(55) See, for example, preliminary efforts by Cole-King (1979) and Bourne (1979).

that are used often do not permit determination of specific types of projects, and it would be difficult to account for expenditures in cross-cutting areas (such as health planning) that could be allocated to PHC. It may still be simpler, and more accurate, to collect assistance outlay figures from agency sources than from country budgets, although for purposes of this project it would be desirable to have aid budget data set out as a proportion of total country health budgets. In all, these considerations reflect the basic methodological problems in the financial analysis of health programs, which are in need of substantial further attention.

We may, however, make some preliminary generalizations about the distribution of PHC assistance according to government regime types. In his study of PHC policymaking in Central America, Bossert (1981) has found some variation in the relative influence of different external agencies. Referring to the categories introduced earlier, it appears that bilateral support from USAID has been targeted chiefly on "status quo" regimes, while multilateral support in health care has been used most extensively by "reformist" governments. The pattern of AID assistance going to such countries as Guatemala and Somoza Nicaragua during the 1970's is consistent with the overall allocation of U.S. support to conservative and potentially unstable regimes in this region. This pattern may also be seen as building on previous AID projects in these countries. There is little bilateral assistance for health care from other sources in this region. In contrast, PAHO support tends to be more widely dispersed than bilateral aid. It is partially due to the historically strong presence of PAHO that it has continued as the major external actor for health in countries such as Honduras. In the case of the more reformist regime of Costa Rica, this factor is combined with the popular disfavor of bilateral assistance to bring about a much greater reliance on support from PAHO. This has implied a greater systemic emphasis on planning, rather than on individual projects, as the mode of external influence on PHC in these latter countries. Although different agency and country circumstances will prevail in other regions, it seems likely that similar patterns of assistance for PHC will hold elsewhere. We hypothesize,

41. External assistance for PHC in conservative regimes is likely to emphasize project-oriented bilateral AID support, while in other countries, particularly under reformist regimes, multilateral support will be favored.

The various types of external aid for PHC--including project development, budget support for project components, and technical assistance for health planning and other activities--clearly influence country policymaking for PHC in a variety of ways. The most ambitious of assistance approaches, namely, the WHO-coordi-

nated effort to promote the formulation of PHC strategies in all of its member countries and achieve "health for all by the year 2000," is far too recent an undertaking to permit a reasonable assessment of results, although the scope of this effort raises serious questions concerning feasibility. Based on our discussion so far, it may be proposed that assistance for PHC will contribute to policymaking in most countries to the extent that it is provided within the framework of an overall strategy for redirecting the emphasis of national health services. The assistance objectives of all external agencies justifiably exclude activities designed explicitly to change host country policies where that change is not desired; yet there is a continuing need to clarify understanding of the intended and actual effects on the PHC policy process. There are many areas where donors can provide necessary support for PHC, especially under improved aid procedures and administrative strategies. At the same time, the risks attending over-leverage of donor resources have been widely noted. Particularly in the area of recurrent program costs, external support runs the danger of overextending the financial commitment of donors and host countries alike, and of skewing the country's pattern of health service provision (Clinton, 1978:122; Joseph and Russell, 1979; Golladay and Liese, 1980). One of the options that has been suggested to prevent such leverage problems is a shift of most assistance to the long-term support of national budgets, which would augment government capacity while shifting budgetary responsibility to the country itself (Caiden and Wildavsky, 1974:302). Another approach, which maintains greater donor discretion, is to build requirements for local cost financing and the phased assumption of program costs by governments into assistance packages; this strategy is being increasingly adopted by donors, although its effectiveness cannot yet be determined. In general,

42. External assistance will have greater influence on the adoption of PHC policies, the greater is donor agency attention to policy strategies designed to account for the local assumption of program costs.

A related aspect of the long-term significance of external aid concerns the structure and mechanisms of project control. Planning and implementation problems were experienced in many early donor-supported PHC projects, and there was often a failure to maintain continuity once the original funding was terminated. Donors have in recent years come to undertake projects in greater collaboration with host government agencies, an approach that has been credited for a number of successful project outcomes (e.g., Neumann et al., 1978). Taylor (1979) further identifies this mode as a "new collaborative style" in international health activities; the formation and maintenance of linkages with host country institutions and other improvements in project adminis-

trative procedures are central requirements if this approach is to be effective. (56) A trend toward multiple-donor projects is also in evidence, reinforcing the need for a coordinative role by multilateral agencies in PHC efforts. Information is not readily available on the extent of these shifts in program structure, but it is likely that these would be reflected by changes in project financing structures, on which data could be gathered, as discussed above. We may propose,

43. External support of PHC adoption will be more effective, the greater is the degree of donor collaboration with host country agencies, and the broader are the institutional linkages that are developed among external and national actors.

In this section we have discussed a number of factors bearing on the influence of foreign assistance on PHC policy. Due to the limited and relatively nonempirical state of the literature in this area, it is not possible to be more than tentative on most issues in this area. We may suggest, however, that USAID: 1) continue to stress and encourage other donors to support similar efforts in PHC programs; 2) emphasize major contributions to initial funding of PHC, as well as flexible approaches to continuing support; and 3) enhance efforts to make donor participation truly collaborative and to institutionalize linkages, rather than impose a rigidly defined PHC model.

(56) Cole-King (1979:14-18) describes a number of issues appropriate for donor attention in PHC, including project identification mechanisms, appraisal procedures, organizational strategies, screening for health conditions, the time-phasing of assistance, strategies to promote local cost financing, and the improved use of voluntary agency channels. Other writers have suggested similar areas of focus.

III. THE ADMINISTRATION OF PHC PROGRAMS

The second phase of the PHC policy process is that of program administration, or "policy implementation," by the health ministry or other responsible agency. Following the model of the policy process, the activities in this phase are those concerned with the development and management of PHC resources--financial, manpower, and knowledge. The principal elements of program administration, as set out in this chapter, are:

1. The presence of administrative commitment to PHC objectives and programs;
2. The degree of administrative capacity for the implementation of PHC programs;
3. Strategies and procedures for the recruitment and training of PHC workers, who form the central resource for PHC;
4. The presence of pilot activities for PHC, including procedures for their evaluation;
5. Aspects of the decentralization of PHC programs, within the overall MOH administrative structure; and
6. Aspects of the integration of PHC activities within the MOH, and with other related agencies.

Each of these may be seen to have significant impacts on the form and outcomes of PHC programs, as they give shape to the PHC strategies adopted by policymakers, and organize the actual provision of PHC services. The literature on PHC implementation, as a part of the much larger literature on development program administration, suggests that these factors may be critical in accounting for the success or failure of PHC efforts. In this, we may, as Cleaves (1976: 9) suggests, conceive of the health bureaucracy as "divided in goals, resources, and skills, and having a variable impact depending on its fields of activity and institutional coherence." Similarly, Altenstetter (1976: 10) observes, "institutional variables may explain why policies may or may not work at cross-purposes when implemented." While our hypotheses in the six areas are not exhaustive, they attempt to identify some of the most important of these influences for PHC programs.

The field of program administration is in many ways much better defined than that of policy formulation, and it is far more accessible to those who manage development programs and who have described these activities. There is, then, a larger but more consistent selection of literature in this area than in the previous one. The work on program management tends to be focused in two related areas: on the operations of the health agency in given countries, and on strategies for technical assistance by external agencies to improve those operations. The scope and significance of management activities in PHC and other development programs has been defined in different ways by various authors.(1) There appears, however, to be broad agreement concerning the major problems which are faced in PHC program administration in most developing countries--e.g., deficiencies in organizational structure; weaknesses in processes of planning, programming, budgeting, and financial control; in information gathering, evaluation, and supervision; lack of trained manpower in management; and attitudes and behavior inconsistent with program goals. The development of PHC services is further complicated by its mission of extending health ministry services to outlying geographic areas, an undertaking which magnifies each of these difficulties.(2)

In a recent comprehensive review of the literature on program implementation in developing countries, Ingle (1979) described the strengths and weaknesses of different perspectives, emphasizing the need for greater recognition of the implications of these various models, particularly to those of the "program life-cycle" approach. In view of its breadth and usefulness, the outline of

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- (1) In many cases "administration" and "management" are defined to cover activities that we include in the area of "service provision", which is discussed in the following chapter.
 - (2) Rizzo and Davidson (1980) offer a useful overview of relevant issues. Similar categories have been identified for the administration of family planning programs as well (Clinton and Godwin, 1979: 95-99). These latter authors do correctly point out the absence of any overarching theory of program administration, which relates specific activities to program outcomes (p. 95). The literature on PHC administration is indeed broad, and only a sampling of it can be discussed here. Among the more comprehensive works, Golladay and Liese (1980) outline central issues in PHC implementation. Smith (1978) chiefly addresses manpower concerns, considering the training, deployment, supervision, and logistical support of health care personnel. Emrey (1979) divides the management field into areas of materials and facilities, financing, patron-client and community relations, and program organization. O'Connor (1979) describes the management of rural health services in a detailed case study of Afghanistan.

Ingle's review may be briefly summarized. The major approaches to "general administration" focus on: 1) institution building, which emphasizes development of the capacity and effectiveness of new organizations, which is currently reflected in the IRD literature; 2) administrative reform, emphasizing organizational restructuring, through such means as decentralization and integration; and 3) local management, which focuses on managerial technologies that are more appropriate to the needs of developing countries than are conventional Western models. Three distinct approaches to "project administration" focus on: 1) uncertainties and latitudes in the environment and the organization, which condition implementation and call for assessment and evaluation; 2) target population involvement, which emphasizes the inherent requirements for beneficiary participation in project strategies; and 3) the implementation cycle, which draws attention to changes in management functions over the course of a project, and emphasizes the need for flexibility, monitoring and feedback, and the reward of implementors in project operations. Each of these approaches has clear applicability to PHC, and they are incorporated in different ways in the analyses in this and the following chapter.

In contrast to the previous chapter's emphasis on measures of policy adoption as the dependent variables, in this chapter and the next we are concerned with those factors which are likely to be related to a new set of dependent variables: indicators of successful policy implementation. While an ultimate test of successful implementation would be the actual demonstration of successful impact on health levels, we have seen above that no clear evidence yet shows that PHC programs on a national scale do in fact change target population health status. Our concern here will be to determine whether the set of activities associated with the PHC model are carried out by the governmental administrative institutions in a smoothly running manner. The underlying assumption is that only a smoothly running program is likely to have even potential impacts on health status.

The elements discussed in this chapter--administrative commitment, administrative capacity, recruitment and training, pilot activities, and the decentralization and integration of administrative structure--are viewed as contributing to "effective administration" of PHC. This output is to be measured by three types of indicators:

1. Increases in the generation of PHC resources, including the number and change in the number of:
 - a. Health workers trained;
 - b. Health posts or clinics placed; and
 - c. Latrines and water supply improvements placed.

2. Rates of expenditure of the PHC budget, including:
 - a. The percent of the approved PHC budget expended during the year, overall and within program areas; and
 - b. Increases in PHC budget expenditure rates.
3. In addition, the results of program administration will play a part in the achievement of output goals in the phase of "service delivery"--including:
 - a. The presence of community support for PHC operations;
 - b. Improvements in the accessibility of PHC services to the target population; and
 - c. Improving patterns of service utilization.

The expected relationships between each of the six administrative and the overall outputs, as set out in the hypotheses, are likely to vary in their influence on one or more of the specific output measures. Due to the interconnectedness of the areas, however, and to the lack of specificity in the implementation literature, these relationships are often not precise. Our focus, therefore, will be on the contribution of individual administrative factors to all of these outcome variables.

Collection of data remains a continuing problem in administrative analysis, and currently available sources offer only a weak basis for testing the hypotheses that are proposed here. As is suggested in later chapters, both general procedures for obtaining information on PHC administration such as through regular evaluation formats, and specific studies of individual PHC programs, will be required for this purpose. One promising source of some necessary data is the effort underway by the AUPHA to diagnose administrative problems within a technical assistance framework. (AUPHA, 1979). This project is designed to collect data on operational practices and performance in a number of separate managerial areas (e.g., materials and facilities, human resources, etc.) through "self-assessment" exercises. The design, collection, and analysis of the data is determined by local needs, but can be expected to cover a large proportion of the dependent and independent variables which are discussed here. Results could usefully be supplemented by the inclusion of budget variables and integration with other country data, along with a focusing of attention on predicted relationships within and among the areas of study. This type of project, and others conducted by donor agencies and national governments, represent basic resources for administrative research.

We now turn to the examination of specific areas of program administration, beginning with administrative commitment to PHC.

A. Administrative Commitment

Our review of the policy formulation literature indicated that the support of health ministry decisionmakers is a critical factor in the adoption of policies for PHC. Similarly, materials on development administration suggest that support by the bureaucracy at all levels is a major determinant of the effectiveness of public programs, particularly of those such as PHC which may be resisted by important elements of the national population. As in the earlier case, the general concept of "administrative will" is not demonstrably useful for analysis in this area. However, there are several aspects of the support of health program implementors which have a clear relation to program success. First, in both the central government and the health bureaucracy, "political" decisions affecting the flow of resources to PHC also influence the effectiveness of PHC implementation, both on a day-to-day basis and over the longer term (Altenstetter, 1976). Even when backed by "good intentions" and technical capability, PHC programs may be ineffective due to lack of leadership as well as active opposition from other parts of the health system (see Banerji, 1976). In a study of family planning program implementation, Simmons et al. (1975:575) observed, "In the absence of organizational leadership and commitment, management skills may be largely irrelevant to the work of operating agencies."

The most basic and perhaps most transparent aspect of administrative commitment has to do with the significance attached to PHC by health ministry decisionmakers. The perception of significance is likely to be related to the broader importance assigned to PHC by national policymakers (including the Minister of Health and others with responsibilities for both formulation and implementation). A higher priority implies a greater level of available resources for PHC, as well as greater support of program efforts within the agency. As an outcome of bureaucratic politics, high-level priorities may soon be shared at other relevant points in the ministry. Top-level priorities may also overcome lower-level bottlenecks. Thus, Sussman (1979) concludes that the goals of any program must be relevant to the top bureaucratic leadership for it to be successful. This point is made, either explicitly or implicitly, in the great majority of studies of PHC implementation. Such support characteristically takes the form of active leadership in PHC by particular individuals (Bossert, 1981a); it is then often reflected in agency directives or other circulated documents. In the absence of personalized leadership, activism at lower levels of the bureaucracy may be able to influence higher-level attitudes, but the low visibility or salience of PHC is likely to limit the effectiveness of this approach

(Cleaves, 1979:300-302). As a result of these factors and the normal course of public policy, the top-level significance attached to PHC tends to vary over time, and attention must be given to the impacts of this variation on the implementation process. Overall,

44. The greater is the sustained commitment at the top administrative levels to PHC goals, the more effective will be PHC implementation.

Related to this issue is the stability of the top administrative cadre. Rapid rotation of top-level bureaucrats plagues administrative effectiveness in all development programs (see, for example, Esman and Montgomery, 1980). Turnover is especially devastating when leaders committed to new programs are replaced by others who wish to be identified with their own new programs. One of the costs of implementing a program identified strongly with one individual is the potential dismantling of that program when the individual is replaced (Bossert, 1979). Thus we might hypothesize:

45. The more secure the tenure of top-level administrators who are committed to PHC, the more effective will be PHC implementation.

The commitment to PHC cannot reside only at the top administrative levels, but must also spread throughout the implementing agency. concerted and organizationally coherent to have its greatest impact on program outcomes. McClintock (1979), for example, finds that agreement upon program goals is critical to effective implementation, in virtually all areas. Habicht (1981) stresses the importance of compatible objectives among all actors in PHC programs. Similarly, Janovsky (1979) cites the need for cooperation and commitment of PHC implementors at the periphery of the health system as well as at the center. A recent review of family planning programs concluded that concertedness--"the feeling that something can be done"--must be present for effective implementation; in the absence of this shared feeling, programs either do not run smoothly or they are disorganized, leading in each case to stagnation in the effort (Clinton and Godwin, 1979:97). Disorganized programs, in which there is a fragmentation of power or a multiplicity of operative goals, are also open to a greater play of "bureaucratic politics"--the exchange of resources among institutions and clients--which significantly impedes the implementation of original program objectives. Bossert (1981) found that Costa Rica's Ministry of Health became more consistently committed to PHC program goals and activities when responsibility for public hospital care was transferred from the Ministry to the Social Security Agency. Without these competing

curatively-oriented responsibilities, the Ministry could become united behind PHC goals. Thus, we may expect to find a close relationship between the degree of consistency in program goals, the unity of organizational structure, and PHC effectiveness. Overall,

46. The more consistent are the goals of PHC implementors, the greater will be the commitment of all levels of the administration to the same goals and the more effective will be PHC implementation.

A related aspect of administrative commitment to PHC concerns the underlying interests of those health agency personnel responsible for PHC activities. As described in Chapter II, movement of the health care system in the direction of PHC is frequently opposed by decisionmakers who maintain "Western" medical values, particularly through the presence of physicians in high-level posts in the Ministry of Health (Ugalde, 1979). Even where a PHC policy has been adopted, physician values may seriously impede efforts at implementation; this may take the form of passive or active resistance to the PHC program. Regardless, in fact, of the expressed support of top ministry decisionmakers for PHC, such resistance is often observed at lower levels in the health agency. In just one of many examples, the augmented rural health programs of the Janata government in India were seen to be weakened by continued objections from the medical profession, registered throughout the health system (Agarwal, 1979). In this case, much of the opposition was offered by physicians unwilling to work in rural areas. To the extent that the medical profession dominates implementation as well as decisionmaking roles in PHC programs, it may be expected that on balance, a lack of support by these actors will limit program effectiveness. It is generally suggested that other professionals--nurses, social workers, health administrators, and planners, as well as physicians who are trained in a public health specialty--are more likely to promote PHC goals and activities. It is hypothesized,

47. The greater is the proportion of non-physicians with decisionmaking and implementing responsibilities for PHC, the more effective will be PHC implementation.

Finally, leadership commitment to the goals of PHC may only provide part of the top-level support necessary for efficient implementation of programs. Clinton and Godwin (1979:95), for example, note "a lack of empirical evidence that political commitment in itself leads to greater administrative capacity or better performance." A second issue may be a concurrent commitment to administrative reforms, which are necessary to integrate PHC activities into the existing administrative structures, and to

overcome administrative bottlenecks in logistics, procurement and supply, recruitment, etc. In the next section we will be discussing the kinds of administrative reforms that are likely to produce more efficient implementation; here it is important to suggest the significance of leadership commitment to these reforms. (3)

48. Implementation of PHC will be more effective, the greater is the commitment of top-level health agency staff to administrative efficiency and necessary administrative reforms.

To summarize: It appears that commitment both to PHC goals and to facilitation of administrative reforms should be evident at the top administrative levels and throughout the responsible implementing agency for PHC programs to be effectively carried out. This commitment is most probable under the following conditions: (1) when individuals or teams of top-level administrators who are already convinced of the utility of PHC goals are in stable leadership positions in the implementing agency; (2) when non-physician professionals occupy important decisionmaking posts in the implementing agency; and (3) when competing activities such as curative hospital care are separated from those administrators responsible for PHC implementation. Policy implications for USAID are to promote these conditions when they are not already present, and to take advantage of them where they do exist. PHC grants and loans should be negotiated which include a focus on stable levels of the health ministry, and which include provisions for involvement of non-physician professionals in the implementation of PHC components. Finally, without seeking strictly vertical administrative structures, AID should encourage the distancing of hospital responsibilities from those for PHC activities.

B. Administrative Capacity

As described in Chapter II, the capacity of the health agency is in general a central determinant of the success of PHC policymaking. Issues in this area concern the overall level of skills and infrastructure within the health agency; PHC efforts are affected as only one program of many. However, because of the strong demands placed by PHC on management capabilities, in the extension of health services to new populations and new geographic areas, PHC may in fact receive a particularly high proportion of the

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- (3) Paul (1980), Montgomery (1979), and Cleaves (1980), among others, argue that development administration in general requires such leadership commitment, regardless of specific program goals.

marginal benefits from administrative improvement.

There has been a strong and continuing emphasis in technical assistance strategies and in the PHC literature on improving management practices in developing countries. Both AID and WHO, for example, have over the past decade conducted extensive efforts directed at the institutionalization of modern management techniques in the health sector, most of which are useful to PHC. (4) We should exercise appropriate caution in the adoption of these techniques since, as both Clinton and Godwin (1979) and Rizzo and Davidson (1980) point out, the current knowledge base does not provide adequate understanding of the relationship between administrative capacity and program effectiveness. Nevertheless, there are good reasons to expect that better management will enhance program effectiveness. The introduction of new programs such as PHC implies the acquisition of new skills, and where administrative capability is weak, this capacity must be developed before program activities are initiated (O'Connor, 1980). Management control procedures are integral to all of the other aspects of program administration, and they may be considered prerequisites to successful policy implementation. Finally, even though causal patterns may not be evident, field experience does tend to suggest that the adoption of management techniques and other innovations has contributed positively to Basic Needs program outcomes.

Our hypotheses in this section concern the probable impacts of various skills and techniques in planning, operations, budgeting, and evaluation on PHC results. Specific as well as general indicators in each of these areas of administrative capacity are identified. Analysis of these points requires relatively detailed information, which must usually be obtained through country-level surveys or evaluation studies. Several data collection formats are offered in the literature, which are likely to be useful for this purpose. (5)

(4) The work of AID in this area has formed a part of the agency's overall management assistance for development programs, including many specific projects in health. The recent focus of these targeted undertakings has been on PHC (USAID, 1978). WHO carries out a broad program of technical missions in the management area, and a number of its publications have addressed this subject. Among these, a major monograph by Bainbridge and Sapirie (1974) describes in detail common management problems, modern management techniques, and their relation to the organization of health services.

(5) See, for example, Emrey (1979) and the comprehensive listing of management indicators contained in Austin (1979:276). Questions may also be readily adapted from other sources cited in this section, including the AID paper by Bloom et al.

The first factor to be considered is the extent of planning and management skills found within the health agency, particularly among intermediate-level personnel. Regardless of their application, "the presence of such skills constitutes an essential building-block of all health programs, and a necessary resource for the institutionalization of PHC strategies. The importance of operational skills and experience has been emphasized in the literature on development program management.(6) Although these skills and experience are perhaps implicit in any discussion of administrative capacity, treatments are not always clear. Clinton and Godwin (1979:95) stress the injunction to "not institutionalize incompetence," yet competence has both general and task-specific dimensions. The critical aspect of usefulness for PHC is the extent to which techniques such as planning have been successfully merged into the ongoing operations of the health agency. Thus, basic measures of planning and management skills include the number of years that planning has been conducted; the training of agency staff in health planning skills; the management training of mid-level administrators; and, following an earlier point, the proportion of non-physician administrative specialists in key positions. Overall,

49. The greater the level of planning and management skills in the health agency, the greater is the likelihood of successful implementation of PHC programs.

A second element of administrative capacity has to do with the institutional norms and management practice relevant to PHC implementors. Many of the problems of morale and performance encountered in development programs have been attributed to cultural patterns and bureaucratic structures which discourage the most effective accomplishment of program objectives. The extension of top-level support for PHC throughout the health system is frequently impeded by factors not explicitly taken into account in planning, and as a consequence, decisions may simply not be carried out at the periphery. Ugalde (1979) cites a "vicious circle" of cultural effects, in which prevalent attitudes promoting personalistic management norms lead to centralization of authority and less delegation of program functions to lower levels of the health system; he finds that intercountry differences in this regard may be causally related to program failures. The introduction of paraprofessional roles into rural health programs is

(1981). In all, there appear to be substantial opportunities for productive research on administrative capacity in PHC.

- (6) See, for example, Korten (1977a) and Crosby and Lindenberg (1979). Most of this writing has grown out of work in the field of population and family planning, through regional or country-level management institutes.

often resisted by staff, and managers are frequently reluctant to shift from traditional hierarchies into "health team" patterns. One strategy suggested by many writers, is the development of alternative mechanisms for personnel compensation, which reward managers for effective performance rather than for "business as usual" (e.g., Cleaves, 1979:296). Incentive systems targeted on important activities, particularly those in which implementors must be responsive to target populations, are a necessary step in changing behavior patterns and improving morale (Esman and Montgomery, 1980:207). Examples here are the establishment of promotion criteria based on managers' effectiveness in expanding program coverage and utilization, and the basing of hiring decisions explicitly on merit and education. Cultural norms are likely to remain inconsistent with PHC goals in many countries, but the publicized adoption of even minimal changes such as these may be expected to yield significant administrative improvement.

50. The greater is the use of "modern" management practices such as performance-oriented incentive systems and merit-based personnel decisionmaking, the more successful will be the implementation of PHC.

The application of specific management control techniques in PHC has been identified as another important means of improving administrative capacity. These techniques are basically refinements of the conventional functions of planning, budgeting, monitoring, etc., but which are designed to counter the most serious deficiencies observed in this area. Their underlying principle is the integration of the commonly fragmented activities of management control. At the beginning of any such integrated system lies the process of operational or tactical planning. Tactical planning is distinguished from the broader "strategic" planning that is a part of policy formulation, in that it is oriented to resources and contingencies in program operations. As set out by Smith et al. (1980:42), "Operational planning takes the final strategic choice and specifies (1) what will be done, when, and by whom; (2) what resources will be required; and (3) what control systems will be used--to track results and progress, to monitor efficient use of resources, and to monitor unanticipated consequences." (7) Considering tactical planning in the health

(7) This distinction was first made in the business management literature; for an early discussion, see Chandler (1962:11). Its application to development program administration is described by Paul (1980). A wide range of planning activities are normally carried out in all agencies, but they are often inadequate to meet program needs. Among the objections that have been raised are a lack of flexibility, lack of attention to budget considerations, and inattention to ways of facilitating implementation (Uphoff, 1980:34-35; Caiden and Wildav-

sector, Litsios (1971:80-81) stresses the need for explicit definition of programs in terms of their operational requirements. Mburu (1978) finds much of the "gap between rhetoric and implementation" to be due to the failure of planners to consider specific issues of resource availability and program access and acceptability. Noting that program costs are frequently underestimated, he suggests that plans contain options for various resource levels, to provide "escape routes" in implementation. Emphasis has been placed by these authors on the linkage between planning and budgeting, particularly through the adoption of program budgets which detail expenditures according to program functions (e.g., Caiden and Wildavsky, 1974:163). This concern is also reflected in the report of the JCHP study of PHC (WHO, 1981:35), which recommends greater use of financial data and analysis, including the publication of backup figures, for budgeting and monitoring purposes. Possible measures in this area are (1) the scope and detail of operational plans within the health agency; (2) the presence of an annual program budget for PHC; and (3) the conduct of a yearly PHC programming exercise for budget revision.

51. The greater is the use of tactical planning methods and program budgeting for PHC, and the more these are integrated into agency management processes, the more effective will be PHC implementation.

Central to all management control functions is the management information system, or MIS, which identifies, collects, and processes data on program progress. The need for a comprehensive, simple, and operating MIS has been extensively treated in the development administration literature (e.g., Esman and Montgomery, 1980:222). For PHC, Habicht (1981:460) sees the collection and use of information on all measureable program objectives as necessary for effective operations. In particular, budgetary control may be improved through the monitoring of expenditure flows and the determination of implementation rates for program areas on a frequent basis (Snodgrass, 1979:16). Examples may be found of effective MIS utilization in PHC, but these systems are often not used, especially at the national level. (8) The JCHP study

sky, 1974:298).

- (8) For example, Murthy and Satia (1977) describe the introduction of a performance-oriented MIS for rural health services at the state level in India, which was first used for research and then adapted for supervision and financial control. The bulk of evidence indicates, however, that there is a general absence of effective information systems in PHC, even at the project level (see APHA, 1977:51 and discussion below.)

(WHO, 1981:28) reports on the use of indicators for monitoring of service provision and budgeting, and recommends their expansion to cover social, economic, and political factors as well as activities in related sectors.

Other literature suggests, however, that specific task orientation is a more important consideration than breadth in MIS design. The first requirements are to determine the minimum amount of data that are necessary, and to ensure that the information collected is accurate (Ugalde, 1979:15; Caiden and Wildavsky, 1974:298). Development of a practical MIS is difficult, and there are many reasons that management may fail to get the information it needs, or fail to make use of information to which it has access. Deboeck and Kinsey (1980:16-17) identified a number of reasons for the failure to obtain needed information, including: management is not involved in the design of the MIS, or is incapable of specifying its needs; project designers do not specify the role of the MIS; data received is not fully interpreted by staff; and, the MIS is underfinanced. Reasons for possible failure to use information include: management has limited absorptive capacity; the relevance of information is not appreciated; it is inconclusive or of uncertain reliability; necessary decisions are outside of the control of management; and information is counter to management's preconceptions. A combination of these factors is likely to be operative in any given setting. The actions necessary to construct an MIS thus extend beyond technical concerns, and the evolution of a functioning MIS may be slow. Relevant indicators for PHC in this area include: (1) the presence of an MIS in the health agency, reaching to the service level; (2) collection of reliable data on PHC activities; and (3) actual use of the information in PHC decisionmaking. In hypothesis form:

52. The more developed is the health agency MIS and the more it is utilized in decisionmaking at all levels, the more effective PHC implementation will be.

The final aspect of management control to be considered is the PHC evaluation system. Evaluation serves several distinct purposes, more than one of which is usually present: (1) verification that program outcomes correspond to original goals; (2) control and accountability within the bureaucracy; (3) testing of research hypotheses; and (4) satisfaction of lending agency requirements (Ugalde and Emrey, 1978). The term "evaluation" can refer to a number of different types of analysis, to suit these purposes. A feature common to most designs is the relation of program costs to outputs or outcomes, for the assessment of cost-effectiveness (see Litsios, 1976). The evaluation function may be organized in different ways; it may be directly incorporated into the agency's administrative system, or it may be con-

ducted as a special project by the government or by external organizations. In either case, problems often arise because: (1) purposes for evaluation may differ among designers and users; (2) means of collecting, transmitting, and presenting data are often inadequate for the analysis of program impacts; (3) personnel with the necessary combination of skill and influence frequently do not participate in evaluations; and (4) constraints are often imposed on the evaluation process by policymakers and the bureaucracy. These difficulties can lead in practice to a separation of evaluation from decisionmaking; evaluations may be incomplete; or they may simply not be performed (Ugalde and Emrey, 1979:309-10). The improvement of evaluation requires, at minimum, high-level attention to the evaluation process, and to the needs for better evaluation; support by line administrators; and greater emphasis by evaluators on administrative and policy concerns. These factors highlight the need, noted by many writers, for a close linkage of evaluation to the agency MIS. Work on local project management stresses that evaluation must be built into programs, as the basis for a dynamic "learning process." (9) There is currently a trend towards the formation of integrated "monitoring and evaluation units," to carry out a full range of management control functions for the agency. (10)

Evaluation in most ongoing PHC projects appears to be limited. A 1977 survey of low-cost health projects found strikingly limited evaluation capabilities in most settings. (11) The major

(9) See, among others, Korten (1977a) and Smith et al. (1980:42-44). The "learning process" literature focuses chiefly on particular development projects, rather than on system-wide programs, but the principle of organizational learning and many of its implications are highly relevant to other organizational forms as well.

(10) (Deboeck and Kinsey, 1980:40). The evaluation function retains its identity in this arrangement; recent strategies "emphasize a two-tiered model in which a centrally located evaluation unit links a network of decentralized, project-based monitoring and evaluation units" (p. 43). The report goes on to discuss organizational, staffing, training, and cost aspects of this model.

(11) About 40% of the projects included some evaluation activities. However, "Evaluative practices appear particularly weak and lack sufficient data and data handling procedures. Only a handful of projects have formal evaluation components and could be expected to be able to measure the specific outcomes and costs of their efforts. A majority of the projects gathering evaluation information report they are not able to use the data to increase progress toward goals or to improve project management, planning, and budgeting" (APHA,

PHC projects supported by USAID have data collection components, but, while useful summary studies on these have been prepared (e.g., Baumslag et al., 1978), not all have been subject to detailed evaluation. AID continues to have a strong interest in evaluation, and efforts are underway to expand these activities in the health sector (Shumavon, 1978; Bloom et al., 1981). The contribution of evaluation to PHC effectiveness is contingent upon the necessary commitment and procedures for bringing results into policymaking and administration; however, greater institutionalization of evaluation functions may in itself be expected to promote such utilization. Indicators in this area include: (1) the presence of an evaluation capacity within the health agency; (2) linkages between the evaluation process and the broader MIS; (3) completed evaluations of PHC projects or programs, including studies by external agencies; (4) procedures for the use of evaluation results in decisionmaking; and (5) evidence of the application of evaluation results. Overall,

53. The better developed is the health agency's system of program evaluation, the greater is the frequency of its use, and the longer it has been in operation, the more likely it is that PHC will be effectively implemented.

To summarize: Managerial skills, tactical planning and budgeting, management information systems, and program evaluation each appear to contribute to improving the effectiveness of PHC policy implementation. However, while the literature on these administrative factors seems to display a remarkable consensus (a consensus which is lacking for many of the other sections and hypotheses), it does not substantially help us to determine the relative costs and benefits of efforts to improve administrative capacity. Research into this area should therefore be designed to assess the contributions and costs of activities intended to expand such capabilities. How much effort USAID places on improving country administrative capacity for PHC should rest on evaluation of these factors relative to efforts in other areas which are discussed here, such as health planning, recruitment and training, and pilot projects, etc.

C. Recruitment and Training

One of the key features of PHC is its extensive use of paraprofessional workers, and the development and management of human resources is therefore a crucial element of program effectiveness. In this aspect, PHC shares concerns with other Basic Needs programs, which focus on the provision of services to populations little served by government bureaucracies and employ

nonprofessional workers for this purpose. Central issues in recruitment and training of staff for these programs have been discussed extensively in the development administration literature, as well as in specific materials on PHC.

A variety of paraprofessional roles and designations are found among the PHC programs of different countries. We focus here chiefly on the auxiliary or village health worker (VHW), who provides PHC services at the community level and is seen as "the pivotal and most important point" of large PHC systems.(12) The activities of VHWs may be separated into at least four categories: (1) provision of specific services; (2) screening and referral; (3) assistance and support of health programs; and (4) health promotion (Colle et al., 1980:11). Other VHW activities--education, community organization, acquisition of goods and services, and demonstration and testing of innovations-- have also been identified, but may be seen as falling within the aforementioned categories. Workers usually perform some combination of these functions in a given PHC setting.(13) Health agencies thus face the task of developing with a broad selection of skills to serve at the periphery of the health system. In addition, the functions of paraprofessionals must be integrated into all of the operations of PHC; this incorporation of new workers is perhaps the greatest practical challenge for PHC administration, and its implications have not yet been fully explored in the literature (see especially Smith (1979)).

Broader perspectives on manpower questions are offered in the fields of medical sociology and anthropology. The concern of medical sociology with occupational roles in health care addresses the relationships among different provider groups, and between providers and beneficiaries; however, little of the work in this area has been on PHC programs, or on the developing world in general.(14) Medical anthropology with its continuing emphasis on

(12) (Baumslag et al., 1978, I:4-5). Along with this study, Colle et al. (1980), Esman et al. (1980), Smith (1979), O'Connor (1980), and WHO (1976) are among the most comprehensive and useful references on paraprofessional workers in PHC. Esman et al. (1980:140) contains a substantial bibliography on this subject.

(13) (Esman et al., 1980:8-11). Specific functions carried out by health workers in different projects and country programs are presented in APHA (1977), Baumslag et al. (1978), and other sources.

(14) Most of the comparative research on health care roles has examined experience in the industrialized countries, principally the U.S. and Great Britain. Nevertheless, the sociological perspective is potentially relevant to PHC, emphasizing

health care functions in relation to culture, and in particular on the cultural conditions surrounding traditional medical practice, has made greater contributions to PHC research issues. Many of the points raised in this literature are relevant to the study of paraprofessional PHC workers in "non-modern" settings. A number of the generalizations found in the development administration literature have been drawn from anthropological research.

At a practical level, health ministries are faced with the question of how to recruit, train, and supervise the new PHC workers. The difficulties that are presented in these areas vary considerably from country to country. A major factor in this variation is the existing level of human resource skill development. For our purposes the level of education of the rural population will be considered a background variable conditioning the administrative requirements in training and recruitment. Beyond this, our hypotheses in this section cover five aspects of the recruitment and training process: recruitment strategies, the personnel system, training procedures, medical education, and management training. (Some issues raised in several of these areas will also be discussed in connection with service delivery by PHC workers, in the following chapter.) The most direct output indicator for this set of hypotheses is the number, and changes in the number, of workers trained; ultimately, of course, we are concerned with the contribution of these workers to the functioning of the PHC system, involving all facets of implementation.

Mechanisms for recruitment are central to determining the characteristics of PHC workers, and the quality of workers in relation to program objectives. Workers may enter into PHC programs through a variety of channels whose use is conditioned both by the availability of different types of manpower and by the design of the services. Recruitment procedures must be established so as to best meet the requirements of PHC according to its definition in each country. In some cases it will be possible to use current health agency manpower, either from existing rural health services (such as malaria control) or through transfer from other units. These workers will be well suited for many PHC functions, and their prior training may ease the transition into the

ing as it does the social nature of transactions among health system actors. Medical sociology has been predominantly structural/functionalist in orientation, although Davies (1979:515) and others have taken a more critical approach to "the nature of health care work and the dynamic of the division of labor within it." She notes that, "as yet, there are few efforts to develop theoretically in this area, and methodology is no substitute for theory." In the PHC literature, the work of David Werner (1980) falls close to this perspective; see also Johnson (1975).

program; a greater availability of such manpower is likely to be beneficial to the PHC effort.

A second source of PHC workers, which is pursued in many countries, is that of traditional or indigenous practitioners who may presently be operating outside of the formal health care system. Denny (1975) cites a wide range of cases in which different types of traditional healers proved willing to adopt new methods and be incorporated into government programs. This avenue will be most effective where traditional healers were already a principal source of care for the target population, where medicine is strongly based on traditional beliefs (Taylor, 1976). In addition, where specific functions are performed under traditional roles, such as those of the midwife, indigenous workers can readily enter into the PHC program (e.g., O'Connor, 1980:71-87). There may be limitations on the potential for this route, however, especially with the uncertainty of prospects for the continued supply of these workers. (15)

Finally, it generally appears that most PHC workers should be recruited directly from target communities, where they are expected to return to practice. As is discussed in the following chapter, communities should be involved in the selection of workers, and steps must be taken to ensure that the background of potential workers is appropriate to program needs. However, there is some evidence that middle-level paid health workers should not come from the specific villages in which they are to practice. Often these workers do not gain the respect from their neighbors that they can obtain from villagers who did not previously know them. For these workers, however, it still appears necessary that they have rural origins. Distortion of the PHC program may also be to the selection of unrepresentative or overeducated individuals; problems arising from the recruitment of unemployed, middle-class graduates were observed in the early stages of the rural health program in India (Banerji, 1973). In view of the range of possible recruitment channels and the options available within these, it may be proposed that,

54. The greater the extent to which recruitment channels account for existing health workers, traditional providers and rural origins, the more effective will be PHC implementation.

(15) Dunlop (1975) suggests that many governments will chose to maintain only informal linkages with the traditional health sector. Others conclude that the number of indigenous workers will decline over time, through gradual merger with modern medicine and PHC or through a decline in their own recruitment (Foster, 1977; Taylor, 1976).

Our second hypothesis has to do with the structure of the health agency personnel system and its ability to incorporate and manage the various categories of PHC workers. Among the many administrative changes required by the introduction of PHC are a number of shifts in personnel organization and procedures, some of which have already been mentioned. Specifically, these may include:

1. Clear definition of the roles, system of pay, training and continuing education periods, incentives, and system of supervision for the PHC auxiliary workers;
2. Management of conflicts among the different classes of workers--auxiliaries, semiprofessionals, nurses, and physicians;
3. Clear definition of the role, training, and supervision of traditional healers brought into the system with more modernized health teams;
4. Shifting of physician roles from a clinical orientation to one of referral and health team leadership; and
5. Promoting changes in the attitudes of doctors, nurses, administrators, and technicians to adjust to the increased interdependence of these groups (Rizzo and Davidson, 1980:8-9).

Health agency personnel systems must have the capacity to define roles and to accommodate changes. It is likely that this can be best done where there are formal plans and procedures for the introduction of PHC workers. However, even in many better-developed agencies there is evidence of somewhat unfavorable work arrangements, owing largely to failures to meet the personal needs of PHC staff. In a study of the work climate of the Costa Rican MOH, Aram (1979) found that rural health was in the top third of job categories ranked in terms of favorableness; yet among service programs PHC fell near the middle of the ranking, as did rural health posts as a job location. (In contrast, jobs in the urban community health program received near the lowest rankings.) Further examination revealed that while the training and loyalty of rural health staff were rated highly, their personal needs were met quite poorly; overall, "meeting of personal needs" accounted for the second greatest amount of variation in job rankings. The MOH of Costa Rica may be expected to have a particularly effective personnel system for PHC, in view of its longstanding support for rural health services. It is likely that the relative position of PHC jobs in the health systems of most other countries would be significantly lower.

A related aspect of personnel arrangements is the use of incentive schemes to reward PHC workers. It is clear from the de-

velopment administration literature that incentives are a crucial determinant of staff performance; attention must be paid to their flexibility, including the use of non-financial rewards, and consistency in their application. There are, however, only a limited number of reported cases in which such procedures have been successfully implemented in PHC operations. (16) There are thus a number of areas in which the organization and capacity of the personnel system affect the job conditions of PHC workers, and in turn influence job performance and PHC effectiveness. In all,

55. The better the health agency personnel system is able to organize the roles of PHC workers, to respond to their personal needs, and to provide appropriate incentives for job performance, the more effective will be PHC implementation.

A number of issues related to program outcomes arise also in the training process for PHC workers; discussion in previous sections has emphasized the importance of training workers at all levels in new roles for PHC. In many programs, training constitutes a central element of PHC operations; however from country to country there is considerable variation in the scope and duration of training given to PHC personnel. (17) Training and program design factors, including the range of services, time commitment of workers, and specific health problems all influence the nature

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- (16) A summary of issues relating to the use of incentives in development programs is presented in Honadle et al. (1980:88-92). O'Connor (1980:28) observes that "Financial reward, continuing education opportunities, prospects for advancement, and recognition by peers are incentives that may help motivate rural health workers over the long run. It is unrealistic to expect sustained good performance under difficult conditions from anyone who is not rewarded for it." A variety of incentive plans were tried in the experimental rural health program in Afghanistan, but with limited effectiveness (p. 34).
- (17) Training was a key feature, for example, in the design of the Danfa Project in Ghana (Neuman et al., 1979). Surveys of PHC projects indicate that specific training activities are included in the majority of these efforts, although the training is by no means standard (Baumslag et al., 1978, II:69). The survey by APHA (1977:15-17) found that while three-fourths of all projects were involved in manpower training, much of which was considered innovative, few projects were concerned primarily with training activities. Emphasis on training was greater in projects serving larger populations, and in those with a greater focus on auxiliary workers than on the use of indigenous healers and physician

of training programs. Decisions must be made regarding the mix of pre-service and in-service training, training locale, curricula, style, and instructors (Esman et al., 1980:12, 32-39). Some writers stress a relatively simple approach to training (e.g., Werner, 1978), while others, especially for the case of mid-level workers, present substantially more complex curricula. On the one hand, to retain their commitment to rural areas it is important that workers not be overtrained or brought into major cities (Smith, 1978:25). However, sporadic rural training of too short a duration may be disorganized and ineffective (Agarwal, 1978).

The strongest requirement that emerges is that training objectives and programs be well defined, be clearly oriented to the job needs of workers, be sufficiently long to impart basic skills, and be conducted at regular intervals at fixed sites in rural areas. (18) A process of continuing education after workers are in place is also important, for the assessment and improvement of skills, and for the provision of personal support. Finally, evaluation is also essential to the ongoing improvement of the training process itself (Esman et al., 1980:32). Recognizing the differences that are present with respect to the needs and potential for training, it may be expected that,

56. The more training programs are designed to be 1) of sufficient length to impart basic skills, 2) conducted at regular intervals at fixed rural sites, and 3) contain clearly defined objectives, the more effective PHC implementation will be.

In the long run, integration of PHC into the national health system requires linkage with the medical training process, and a consequent redirection of physician attitudes. The reorientation of health professional education towards PHC principles has several dimensions, and is seen as a serious challenge in most countries. Basic problems in medical education have been observed for many years. In a survey of Latin American countries, for example, Garcia (1971) identified imbalances between the supply and

assistants. In the countries covered by the JCHP study, training ranged in length from a few weeks to six months (WHO, 1981:23).

- (18) A summary paper by Management Sciences for Health (1980:7-13, based on O'Connor [1979]) outlines the steps of job analysis, specification of objectives, and curricula preparation prior to training, and the development of an experiential, deliberately paced and interactive training process. These points, relating originally to the program in Afghanistan, are similar to those made regarding other PHC models (see Smith, 1979).

demand for medical school positions, among the medical specialties, and between the content of training and the need for health service skills. Manpower planning has improved over the past decade, but fundamental problems remain. Roemer (1974:209) points out that changes in the role assigned to physicians must accompany any shifts in physician supply to yield effective changes in the health manpower configuration. The JCHP study (WHO, 1981:38) stresses that the health education system must be redirected towards the training of PHC workers. Joseph (1979) discusses the need for planning to incorporate PHC skills into physician education, and concludes that reform in the health system depends finally upon reforms in medical education. There is also the underlying need to change of national laws and regulations governing the health sector, which in many countries are inconsistent with PHC program needs. (19)

Among proposals for improvement of this situation, ICMR (1976:198-99) addresses specific linkages between PHC and medical education, recommending the use of primary health centers for physician training and wider experimentation with education curricula. Smith (1979:3) and others have promoted the introduction of an intermediate-level paraprofessional role (the MEDEX), which joins the curative and PHC modes of health care to provide administrative linkage and better communication. This approach has been attempted in a number of countries. Compulsory rural service by graduating physicians is a further strategy that has been used to augment PHC manpower and to help bridge the gap between urban and rural health care. Denny (1975) notes that a two-year period of mandatory service by medical residents has had favorable impacts in some countries. Others have been less optimistic. England (1978:157), for example, points out that basic physician attitudes are still unlikely to change, and that long-term manpower and equity problems cannot be solved in this way, although several respondents were critical of this reasoning. On balance, there does not appear to be sufficient evidence to determine the outcomes of any of these approaches, but they are among the possible means of strengthening the relationship between PHC and the medical profession. Overall,

(19) As a report by the World Bank (1980:442-43) observes, "Training and licensure requirements for health workers have prohibited the use of medical auxiliaries at the village level. Civil service regulations frequently have not recognized new types of health workers, and thereby have frustrated efforts to develop career opportunities for them. Donors have introduced new categories of workers to serve temporarily in innovative or time-limited schemes who subsequently could not be readily absorbed by the civil service and health care systems."

57. PHC will be more effective where medical training and practice are linked to PHC activities and national regulations and manpower strategies promote this linkage.

We may briefly mention a final area of training for PHC: that of program administrators and managers. Earlier discussion has noted the need for better administrative skills in most countries and the deficiencies that are typically experienced in this area. Substantial technical assistance efforts, in health care and in other sectors, are devoted to management training; over the long term, management education and in-service training activities must be institutionalized at the regional or country levels to ensure that coverage is adequate and that the skills imparted are appropriate to country needs and are focused on organizational problems. (20)

Technical assistance strategies are now coming to emphasize cultural adaptability and collaboration with host country institutions. Beyond this, however, a number of necessary changes in management training practices may be identified. Based on their review of this field, Rizzo and Davidson (1980:33-34) include the following recommendations:

- * Needs for training, as opposed to changes in policies and procedures, must be determined;
- * Strategies should be designed to provide continuing education through self-learning opportunities and linkage to job performance;
- * Training should focus on personnel teams who will later work together;

(20) Rizzo and Davidson (1980:23) observe that, "In the transfer of technology from the technologically advanced to the LDC's, experience and results have shown a minimum of concentration on the cultural and technological receptivity of the recipient countries. Traditionally, the approach of U.S. managerial institutions (including AID and its contractors) has been to mobilize U.S. experts recruited from the management profession in private, governmental, and educational institutions, in some cases focusing on narrow areas of management specialties such as logistics, personnel, finance or records management and in other cases on broader aspects of planning and organization, seldom approaching problem solving as holistic alteration of organization behavior." On this point, see also Korten (1977a) and Ickis (1978).

- * All training decisions should be made within the health agency itself rather than by advisors;
- * Training should be practical and tailored to meet the day-to-day needs of clients; and
- * The training program should be closely related to research and development, consultation, and dissemination of information.

These are likely to be best served by in-country training, conducted by local organizations with external support where possible. Evaluation may be used to monitor the course of the training activities (Ugalde and Emrey, 1979:329; AUPHA, 1979). (21) In general,

58. PHC implementation will be more effective, the better developed is the local capacity for management training, particularly including procedures for in-service training.

To summarize: There appears to be a general consensus in the literature that certain recruitment and training strategies are likely to improve the implementation of PHC programs. USAID should promote strategies which include (1) recruitment from rural areas which takes account of existing health workers and traditional providers; (2) a personnel system designed to provide appropriate incentives and respond to personal needs of low and middle level health workers; (3) rurally-based training programs with clear objectives and delimited time horizons; and (4) explicit linkages between PHC training programs and those of physicians and administrators.

D. Pilot Activities

In view of the major resource requirements of PHC and the uncertainties surrounding implementation, limited-scale efforts are frequently undertaken as a vehicle for introduction and testing of PHC program activities. The term "pilot activities" is used here to refer to three distinct types of projects:

1. Demonstration projects, which provide PHC services over a relatively small area in order to explore the viability of the strategy;
2. Pilot projects, designed to test the features of PHC models in preparation for larger-scale programs; and

(21) These points clearly apply to the training of other PHC workers as well.

3. Research projects, which are developed to examine alternative program configurations or to investigate the outcomes of PHC interventions.

The differing goals of the three types of projects have implications for their design and for their intended results. Recognizing that there is usually considerable overlap among these project types, it may be seen that each of the approaches may contribute to the eventual effectiveness of PHC programs.

Demonstration projects are the broadest of the categories; they have been conducted by national governments as well as by external agencies for a variety of purposes. They may be designed simply to offer PHC services to selected populations, or they may focus on particular PHC components. As the designation implies, however, demonstrations are generally carried out to illustrate the principles and feasibility of PHC, often without the objective of replication. The Indian government, for example, sponsored a wide range of different options for PHC services during the 1970's, as a part of its rural health program operations (ICMR, 1976). Many of the integrated "low cost health projects" funded by USAID have also been conducted on a demonstration basis (Baumslag et al., 1978).

Pilot projects, in contrast, represent an initial step in the development of nationwide or other large-scale PHC programs, as an operational test of various program features. The intention of pilot projects is that they be models for replication in other settings; they may evolve from earlier demonstration projects, but are usually carried out only after the government has made a specific policy commitment to PHC. Pyle (1979) describes the course of a pilot effort in Madhya Pradesh, India, in a useful case study.

Finally, research projects are designed with an explicit and central evaluation component to determine the impacts of all or part of a PHC model. Nearly all demonstration and pilot projects are originally set out with research goals, and evaluations are undertaken in many of these. Research projects are distinguished, however, by their emphasis on evaluation findings, and on the generation of specific knowledge about the PHC strategy. In one prominent research application, Gwatkin et al. (1980) summarize the impacts of ten PHC projects.

It is reasonably expected that the presence of pilot activities will contribute to the eventual success of a country's PHC program. (22) Whether or not these projects, or particular pilot

(22) Clearly, projects conducted in one country are likely to be relevant to the PHC strategies of others, with the degree of applicability varying according to factors both internal to

models, represent the most efficient use of available PHC resources is of course an empirical question, one which can only be answered in relation to the conditions of a particular setting. Yet adoption of the pilot approach is well established, and in fact many of the PHC efforts reviewed in this paper are essentially pilot efforts. As a preliminary hypothesis,

59. PHC programs will be more effective, the greater is the extent and the longer is the duration of relevant pilot activities.

The remaining hypotheses in this section are concerned with the effectiveness of pilot activities in support of national PHC strategies. Four factors--government interest, relevance, technical replicability, and government participation--are identified as possible determinants of the usefulness of pilot operations. Many of the other influences on PHC effectiveness that are discussed in this report apply as well to effectiveness at the pilot level; our treatment here is limited to elements specific to small-scale projects. The outcome indicator for these hypotheses, of "the contribution made by pilots to PHC success," is difficult to measure, but may be addressed through interviews and program histories. A partial proxy variable may be simply the carrying out of further PHC activities, particularly through the expansion of pilots, understanding that this occurrence may be misleading if there is not an actual translation made from the pilot to a national program.

A feature common to all PHC pilot activities is that they reflect innovations in the delivery of health services with respect to existing practices. (23) While any innovation may be viewed as adding at least to the knowledge base for PHC, impacts on PHC programming are achieved only when the pilots are designed as serious policy options. Out of the great variety of pilot activities that have been undertaken, possibly not even a majority have such a direct policy orientation. (24) A decision may later be

the project design, and external in the operating environment. We will, however, not consider in detail the determinants of such cross-fertilization.

(23) For survey purposes, APHA (1977:1) defines "innovation" as "any idea, practice or object perceived as new by an individual. Specifically, any procedure, implementation or reorganization which is intended to provide a new capability of delivering health services is considered to be an innovation."

(24) The 180 projects surveyed by APHA (1977) had broadly common characteristics--"They tend to be primarily rural, commonly

made that the pilot model is inappropriate for further implementation, but for practical purposes it seems necessary that there be a real potential for incorporation into national program strategies. This potential may be seen as having dimensions of both purpose and technical design. In the first place, the point has been made that many pilot activities represent an evasion of actual operations; in Cleaves' (1979:295) terms, research and experimentation may be to alternatives to action. Nalin amplifies this point in his discussion of health projects in Bangladesh, where he sees an aversion to making the changes that are implied by the PHC strategy, and a consequent tendency towards one-time projects. (25) Speaking particularly of pilot projects, narrowly defined, Smith generalizes that in order for the project strategy to be useful in helping a country "to successfully improve/expand its PHC service coverage to the majority of its population, there has to be a national commitment to develop a countrywide program from the beginning." (26)

Intentionality can of course never be completely determined, and many of the policy formulation variables described earlier clearly enter into the commitment for large-scale implementation. Thus, although research and demonstration projects may be useful to certain PHC goals, as Smith points out, "multiple demonstration programs in the same technical area are poor investments in this time of diminishing resources." (p. 73). In general,

serve about 100,000 people and were often established in the 70's. Most projects rely on a variety of sources of funds that come from fees, drug sales, and foreign official and non-official sources such as churches and foundations." Yet only one-half of the projects responded that they were designed to be replicated in other parts of the country. Policy objectives are unfortunately not discussed in the summary of AID-sponsored projects prepared by Baumslag et al. (1978).

(25) Nalin (1978:706) observes that "The continuous cycle of planned projects and unmet goals suggests that research-cum-aid programs have become a mechanism for procrastination and have the effect of helping to postpone necessary changes. Quite frequently, the effective implementation of discoveries requires social, political, and administrative changes which threaten the institutional and international agreements on which programs depend. The programs tend, therefore, to produce "models" which usually are nonreplicating."

(26) (Smith, 1978:73). He continues: "This means that the highest level of government must decide to pursue vigorously a program of national coverage... A program can start with a small scope to work out methodological and adaptation prob-

60. The greater is the government interest in project outcomes, and the stronger is the national commitment to large-scale implementation of PHC, the more it is that pilot activities will contribute to effective implementation of PHC.

Closely related to government interest is the issue of technical design. Here we emphasize the applicability of basic project features to policy strategies. The trial projects carried out in India during the 1970's represented "alternative PHC approaches" that were being tested in four basic models which were of interest to the government. (27) Likewise, most AID-sponsored projects to demonstrate the viability of PHC are being integrated with other services as a policy option. The seriousness of government interest is thus likely to be reflected in the specificity of project objectives, and the strength of monitoring and evaluation components. Neumann et al. (1979), for example, note that government support of PHC innovations in Ghana was accompanied by strong planning and research functions. The finding reported in APHA (1977:iii) that "project goals and objectives tend to be vague with few and varying measures of progress," and the lack of evaluation components in these projects that was noted earlier, is likely to be related to the limited orientation to replicability and large-scale implementation. A review of the Indian projects emphasized the role of management systems, evaluation, and research, in order to draw lessons for policymaking (ICMR, 1976:198). Although evidence in this area is incomplete, we may expect that,

61. The more directly related project designs are to policy strategies, the clearer are project goals and objectives, and the stronger are project monitoring and evaluation components, the greater will be the contribution of pilot activities to PHC implementation.

Our second focus, on the actual replicability of pilot activities, derives its importance from the fact that the conditions for success on a small scale are usually different from those

lems and then carry the initial phase into a program of national coverage. However, if there is no commitment at the beginning to expand the program nationally, a process of prolonged dissipation of interest, momentum, and resources will inevitably occur."

- (27) (ICMR, 1976; some of these are discussed in Pyle [1979b]). The types of projects included integrated nutrition and MCH care, hospital-based care, comprehensive rural health programs, and subsidized health cooperatives (p. 179).

relevant on the large scale. If pilots are not designed with consideration of program-level needs, replication may be impossible. The issues involved are summarized in the definition adopted in the APHA survey (1977:1): "replicability" is a

characteristic of an innovation which facilitates duplication or adoption elsewhere. (It) involves the relative advantages in terms of costs, resource utilization, its compatibility with existing practices or values, the complexity and ease of trying the new practice, and the ease of understanding and observing the innovation and its outcome.

As already mentioned, a number of writers have critically observed the tendency of many pilot projects to be nonreplicable. Joseph and Russell (1980:143), for example, point out that the resource mix of pilot projects is often so great that it becomes unlikely that can be achieved on a larger scale. The enthusiasm of project managers and workers, which is recognized as an essential ingredient in the success of many pilot activities, is also not easily transferred to larger programs. (28)

For these and other reasons, some writers have questioned the benefits of the pilot approach to PHC program development. Smith emphasizes that "only in an operational program can the major operational problems be worked out." (29) Likewise, Feachem (1980:26-27) is skeptical about the realism of community-based projects serving to initiate a

(28) Pyle (1979b) identifies three reasons cited for the frequent success of pilot efforts: "First, the dedication of project managers is considered most important. This is commonly referred to as the "missionary zeal factor." Secondly, the generous funding the project receives, often from abroad, is considered an essential element. Finally, people talk of the intensive management which characterizes the projects, permitting close supervision and control."

(29) (Smith, 1978:72-73). Following his point, noted earlier, concerning the need for national commitment, he writes that there is "little need to consume precious time and resources in three-to-five year research and demonstration projects in order to prove a known fact. It may be easier to control the variables when one is managing a small-scale demonstration program; and if sufficient resources are invested, such a program can almost always be made to 'succeed' regardless of its potential for national replicability... (T)he wheel does not need to be reinvented each time it is used. A program should be placed that will provide services to the entire country (once a national consensus and a national will to improve coverage is developed)."

self-sustaining chain of development projects, because this view presupposes the existence of untapped resources of capital, cooperation, leadership and time that probably do not exist. Conversely, it is unlikely that an unsuccessful and unsatisfactory experience in a development project will very much hinder the acceptance by the community of any new proposal or offer by the government.

Given reasonable and limited objectives of expanding knowledge of implementation problems, the pilot strategy can be useful; however, the technical requirements for replicability remain critical. In all,

62. For pilot activities to make a substantial contribution to PHC implementation, projects must be designed for replication in terms of cost, resource mix, organization, and other constraints that will be faced by national programs.

A final aspect of pilot activities has to do with the extent of government participation in planning, operations, and financing. For several reasons, ongoing government participation is important to project effectiveness and continuity. First, a greater stake in projects is likely to improve the efficiency of decisionmaking where government interests are involved, and to provide greater administrative power to project managers. Brinkerhoff (1979:25), for example, describes experiences in Indonesia, in which the greatest barriers to the introduction of innovations proved to be those set by health agency administrators reluctant to suffer a loss of power to the project managers. Conflicts with health agency officials at all levels, even in the presence of expressed support, are found in numerous case studies. Pyle (1979) attributes the failure to develop an operational program from a pilot health project in India, to administrative disputes and to a reluctance to make decisions about something with which the bureaucracy was not fully familiar. Greater government participation also enforces a greater attention to project outcomes. If the project is successful this attention may be an advantage; however where the project does not meet its original objectives or has potentially favorable unanticipated consequences, it may be a disadvantage.

The absence of bureaucratic participation may indeed be an asset to projects. Field (1977), for example, identifies the radical nature of a community-based undertaking in southern India, with its features of authority, flexibility, and popular support, as essential to the project's success. Where replication is at issue, however, political support and the development of infrastructure is critical; implementation within the govern-

ment agency offers the possibility for political and administrative support for continuity after external or special resources are withdrawn. Honadle et al. (1980:187) observe that the development of organizational capacity within the government is essential if projects are to yield "self-sustaining welfare improvements." Nalin (1978) notes that projects conducted by external agencies often leave no infrastructure or management capability when they are terminated. Although problems of complexity may well result from the participation of many actors in project activities, these are perhaps necessary for the possibility of continuation. In partial confirmation of this, the recent trend towards designing health projects for replication appears to be associated with the presence of government funding and emphasis on training components (APHA, 1977:iii). Overall,

63. Pilot activities will be more effective, and more capable of being replicated, the greater is government participation in their operations and financing.

To summarize: Although there is considerable debate in the literature over the effectiveness of pilot activities, it appears that USAID should still sponsor pilot projects (1) if they are designed in an environment of general government commitment to PHC, (2) with considerable government participation in pilot operations and financing, and (3) with requirements of replication as part of pilot project design and evaluation criteria.

E. Decentralization of PHC

In this and the following section we examine the relationship to program effectiveness of two dimensions of the organization of PHC services--decentralization and integration. Their relationships to program effectiveness. Each of these dimensions has already been discussed in connection with the policy formulation process, and many of the considerations raised earlier apply to their administrative aspects as well. However, the primary requirements of the PHC strategy in these two areas are those bearing on the implementation process. Within the development administration literature there is a strong emphasis on the principle that the problems of administering programs for "special publics" differ from those faced for other groups, and that the conventional mode of unified, central administration is not best for this purpose. Design of the implementation process for PHC must therefore deal not only with questions of administrative capacity, but also with the matter of organizational structure (Esman and Montgomery, 1980:186).

Choices about organizational design must include the selection of the administrative unit (e.g., line agency, special unit,

etc.), and that of the levels at which specific functions are to be performed. As has been described previously, the breadth and magnitude of these issues leads to confrontation with needs for administrative reform, i.e., for making a substantial set of administrative changes to improve organizational effectiveness. The general issues of organizational design for PHC have been widely treated in available publications. The preponderance of materials, particularly those from WHO, call for decentralization of program operations, and integration of activities related to PHC within and outside of the health agency.

In considering the decentralization of PHC functions we must first arrive at a working definition of this term, which has been described and used in a variety of ways. Of central concern is the determination of the appropriate administrative level for the following administrative functions: responsibility for the generation, collection, and allocation of financial resources; clearance points in the processes of monitoring, enforcement, evaluation, and recordkeeping; and leadership over the entire enterprise and over individual subtasks (Elling, 1974). The chief rationale for decentralization is that the responsibility and authority necessary for quick and adaptive decisionmaking in each of these areas must be present in the field, regardless of the location of ultimate authority. Because of the unpredictability of this program environment, decentralization is judged to be especially necessary to reach the rural poor. In rural areas especially, there is uncertainty due to a lack of information about administrative processes, compounded by a lack of relevant theory; and there is a need to bargain over program decisions where there is local participation. Different forms of decentralization will be appropriate for meeting these needs in different situations.

Two distinct types of decentralization have been identified in the literature: devolution, or the granting of authority and autonomy to independent organizations or to lower levels of an original hierarchy; and deconcentration, or field office control and authority, with a maintenance of responsibility to higher administrative levels. Within these models, a variety of schemes for decentralization have been described. (30) Since most of the

(30) Thomas and Brinkerhoff (1978:9), for example, propose an "alternative participative norm framework" for development projects, based on the devolution of authority to administrative clusters, and emphasizing a two-way flow of information and equalization of opportunities for participation. This is contrasted with traditional "normative, objective, and rational" bureaucratic structures. Others have explored the application of matrix organizations to program management in the Third World (e.g., Korten, 1977), and other forms.

literature and national government experience seems to be focused on "deconcentration," our analysis here will explore this issue. In the following chapter on community-level politics we will examine some aspects of "devolution." devolution.

As previously mentioned, there is little consensus among writers and practitioners over the relative efficacy of decentralization or over the ways in which it should be pursued in development programs. Some suggest strong support for centralization of overall decisionmaking functions, for reasons of politics and efficiency. Among the generalizations made in this area, Brinkerhoff (1980:18) observes that "decentralized project operation entails attending to three areas: (1) achieving a balance between local spheres of action and central authority; (2) managing dispersed organization members and programs effectively and efficiently; and (3) maintaining project coherence and unity among dispersed operating units." Where these issues cannot be resolved satisfactorily, the author suggests that greater centralization is to be preferred. Uphoff and Esman (1974:75-77) state that centralization of all program functions has been found to yield better results, the more complex, powerful, and capital-intensive the program technology; the slower the payoff or return; the more specialized and scarce the technical and managerial skills required; and the slower the feedback process. Administrative centralization is also likely to be more effective, the less federalized and participatory the existing political system, and the smaller the size of the country.

By contrast, others argue that decentralized organizations have been shown to be more appropriate if the program is distributive in nature and subject to measurement and control, and if goods and services are collective rather than individual; these points argue strongly for decentralization in programs such as land reform and IRD.(31) Furthermore, decentralized agencies have

(31) (Hadden, 1979; Grindle, 1979:29). In an early study, Montgomery (1972) found that complete decentralization provided better outcomes in land reform programs, over a sample of 26 countries. Much of the literature on decentralization comes out of the experience of IRD projects; here, requirements for local participation and the complexity of project operations have led to the consistent use of decentralized organizations (Lele, 1975:187).

Local management is seen to facilitate the integration of projects into national programs, and the interaction of projects with their intended beneficiaries (Smith et al., 1980:2). See also the papers on IRD by Cohen (1979) and Honadle et al. (1980). In addition, the work on local organizations in development projects is quite relevant here; see, for example, Uphoff and Esman, 1974).

often been found to be politically influential, although in many cases this is due their presence in high-priority sectors, as opposed to the more common centralization of low-priority sectors (Cleaves, 1976:11). The literature on PHC organization argues for decentralization, with appropriate qualifications, although case studies point to a diversity of program structures in place. The JCHP study, for example, finds that decentralization is more likely to be effective overall than other arrangements (WHO, 1981:17). Habicht and Berman (1980) conclude that organization is the limiting factor in most PHC programs, and that quality of services will be promoted by greater decentralization.

These two views suggest that centralization provides efficiency and control, with rigidity, while decentralization offers better communication and flexibility, but it requires greater political and administrative resources. Decentralized organization has clear advantages for program operations, but it is less effective in the absence of political and administrative resources and mechanisms for overall control. Achieving an optimal balance here may be expected to be a difficult and evolving process. It seems likely that there are administrative and political conditions which make either centralization or decentralization more desirable. Since decentralization appears to be the preferred strategy in most of the literature, our three hypotheses in this area focus on factors of administrative structure and capacity that are likely to influence the feasibility and effectiveness of decentralization.

First, there may be the need for a "fit" between the relative decentralization of the general political system and the Ministry of Health. Elling (1975:183) finds that "the organization of authority in the health sector usually parallels that of society, but the fit may be loose;" there remain a variety of bureaucratic and other influences on health system organization. Ugalde (1978) observed similar political and health care values in a P's health system became relatively decentralized, while in Iran a centralized, hospital orientation was maintained for many years, reflecting the different degrees of centralization of the respective political systems. Gish (1976) and Leichter (1979) hold like views of the "convergence of systems."

Taking this notion of "fit" a step further, the formal organization of decisionmaking and operations within the health sector may also determine much of the potential for decentralizing PHC. In the absence of existing organizational structures at regional and local levels, it is increasingly less likely that decentralization of PHC activities can be effective. Smith et al. (1980:24) observe that at least moderate power is required at all levels of rural development systems if locally-conducted projects such as IRD are to be effective. Of further relevance to PHC is the frequent occurrence of conflicts between decentralized units

and central authority in local health projects. This conflict may occur more frequently when lower-level units are granted formal autonomy, but nevertheless are expected to comply with the requirements and targets of governmental as well as donor agencies. While strong central guidance and control may help prevent field operations from getting away from the center, the resulting inconsistencies in direction can lead to a loss of unity, effort, and effectiveness (Brinkerhoff, 1980:37). We may then expect that decentralization will be more successful if intermediate-level units have sufficient authority and discretion (e.g., to approve budget changes or to hire and fire personnel) to balance control from the center. In federalized systems, such units may take the form of state-level health agencies with separate budget authority. In general,

64. The greater the congruence of patterns of decentralization in the political system, the health ministry, and the PHC implementing units, the more likely it is that decentralization of PHC will contribute to effective implementation.

The prospects for effective decentralization will also be conditioned by another aspect of health sector organization, namely, the degree of fragmentation in the health agency. "Fragmentation" refers to the horizontal division of tasks and responsibilities, in contrast to the hierarchical division implied by "decentralization." Rotenberg (1979) finds that, overall, decentralization is not useful if there is fragmented political and administrative power in a country. Administrative fragmentation is usually reflected by the presence of multiple agencies or units with responsibility at a given organizational level, and parallel or overlapping lines of communication. Because of the necessary involvement of different organizational actors in PHC, there will always be a certain amount of horizontal dispersion of authority, but the interlinkages may still be coherent.

The literature on IRD and other locally-based projects shows a trend toward the use of coherent units within line agencies, in order to maintain linkages and limit fragmentation (e.g., Esman and Montgomery, 1980:221). Smith et al (1980:24-25) found that successful decentralization in rural development projects requires relatively strong and balanced patterns of control and coordination at lower levels; they conclude that the most promising area for improvements in decentralized project design is in the use of more and improved coordination mechanisms. Evidence of the effectiveness of alternative organizational arrangements for PHC is unfortunately limited, but fragmentation is clearly a common problem. In his study of PHC programs in Central America, Bossert (1981) describes the problems arising from a lack of integration, and found no cases in his sample in which fragmenta-

tion was found along with effective decentralization. On the basis of these considerations, we tentatively hypothesize,

65. Under conditions of fragmented political and administrative responsibility and authority, decentralization of PHC activities will inhibit effective implementation.

Along with an organizational structure which facilitates decentralization, technical and administrative capacity must also be available to carry out program activities at the intermediate and local levels. Research performed by the World Bank suggests that administrative capacity at different agency levels, particularly in the form of human resources, bears a direct relationship to the degree of decentralization that is possible. Where administrative capacity is limited to the national level, centralization is likely to be the only realistic form of organization. Although conclusions regarding this variable are tentative, we can suggest that as capacity increases at intermediate and local levels, greater dispersion of administrative authority becomes possible. The key failure in an any initiative for organizational change is likely to be the attempt to move too rapidly to decentralization in the absence of adequate institutional resources (Smith et al., 1980:38-39). Since for a given level of resources in a bureaucracy, the needs of the center will usually be met before significant allocations are made to lower levels, effectiveness in dispersed agency units generally requires that system-wide resources be plentiful.(32)

This generalization is important, because it implies that the use of autonomous projects as a basis for introducing a decentralized PHC system is unlikely to be viable if administrative capacity at lower levels is not already strong. Measures must thus be taken to improve the skills of field staffs, usually through training and support, prior to any changes such as decentralization.(33) In general,

(32) Elling (1975:183) points to a paradox in this regard: a relative abundance of health agency resources will only be available in richer countries, but in these countries the institutional environment will be more crowded, and so have greater internal conflicts and stronger commitments to previous courses of action. Elling is thus pessimistic about the potential for reforms such as PHC if bureaucratic value systems do not change.

(33) Esman and Montgomery (1980:222) observe that organizational changes necessarily take a long time (i.e., of at least several years), since the coordination of services at lower levels in particular often requires extensive upgrading of

66. Decentralization strategies for PHC will be effective only where adequate administrative capacity is present at intermediate and lower levels of the health agency.

It appears, in summary, that decentralization of PHC administration will be most effective if (1) the national political system and health ministry organization are also decentralized; (2) horizontal responsibility and authority are not fragmented; and (3) administrative capacity already exists at regional and local levels.

F. Integration of PHC Activities

The second major organizational aspect of PHC concerns the functional interrelationship of its various components, and the degree to which these components are formally linked. Because PHC is intersectoral in nature and its outcomes rely on many joint behaviors by the target population, integration of activities is widely considered to be essential to the PHC strategy. Four basic reasons for the use of an integrated program structure have been identified:

1. Synergistic effects which may come from combining activities targeted at the same population group;
2. Allocative efficiency, particularly as the result of capturing externalities across service sectors;
3. Economies of scale in the provision of services; and
4. Administrative and operational efficiencies, in implementation and financing. (34)

These principles are drawn from the wider literature on development project administration, but they are clearly applicable to PHC. In the design of PHC programs, questions are likely to be raised early on about the scope and content of services which are to be, first, organizationally integrated, and second, managerially coordinated. (35) There is no single type of integrated

skills and procedures.

(34) See Family Health Care (1979) and Cohen (1979:100-101). It should be noted that Cohen's review of the IRD literature found little empirical evidence that these benefits are in fact often realized. Klitgaard (1980) presents a larger set of potential strengths and weaknesses of integration in IRD; they fall generally into these four categories.

program model, since many country-specific conditions will affect a particular design choice, and its effectiveness in a given setting.

Published work on integrated programming has grown in recent years, largely in response to operational problems that have been experienced in Basic Needs programs. The literature might be divided into those studies which view integration as occurring chiefly between the sectors of health, nutrition, and family planning, and those which see all PHC activities as integrated into broader programs of rural development. As representative of the first approach, Johnston and Meyer (1977:17) discuss the design and implementation of the "composite package" approach to health and nutrition projects; emphasis here is on the overlapping objectives of different sectoral components, which can lead to a range of program outcomes being mutually reinforcing. USAID has adopted an operational definition for "integrated" health projects, as are examined in the report by Baumslag et al. (1978, II:10): the term refers to "any health delivery project which combines nutrition, health, and family planning elements." This analysis by AID emphasizes the nutrition elements of the projects under study; unfortunately, it does not discuss the choice to combine the elements in particular ways, nor the relationship of project structure to program outcomes.

Other programs may incorporate a larger selection of elements, which are intended to provide broad improvements in the welfare of a given population. Addressing one aspect of this approach, the literature on local program management is concerned with integration of project components as a vehicle for improving equity within target groups. (36) Perhaps the most visible of the

(35) As Honadle et al. (1980:9) and others have pointed out, considerable confusion is found in the usage of these terms. Following a distinction made by these authors (p. 26), we may say that integration concerns the level at which authority over program activities converges; the lower is this level, the more the program is integrated, as opposed to "functionally" organized. Coordination describes the pattern of managerial behavior required to combine activities of separate institutional authorities.

(36) The development strategy reflected in such projects has been referred to by some authors as "holistic," rather than "integrated." Ickis (1978:7-8) notes that the latter connotes only a structural arrangement, while "holistic" more appropriately reflects a "socially oriented view of rural poverty as a product of interrelated environmental factors not amenable to fragmented solutions and specialized technologies, and not measurable by aggregate statistical indicators... (It seeks) to address the social, motivational, and organi-

broader integrated activities are the IRD projects, which have been conducted in a number of countries, and are centered around the promotion of broad improvements in agricultural areas. PHC and other sectoral components may be included within these organizations for rural development, although there is as yet little experience with this type of linkage. For these broader integrative approaches a principal conclusion that has been reached (and one which has gained the status of a working assumption) is that many, if not most "management" problems are really problems of bureaucratic politics among and within agencies (e.g., Honadle et al., 1980:201-202; Smith et al., 1980:ii). When programs are integrated, organizations become concerned with control not only over resources, but over the other actors involved as well. As Rizzo and Davidson (1980:8-9) note, "this may involve establishing linkages among ministries of agriculture, welfare, public roads, education, community development, social security, etc." These linkages are required at the local and regional as well as the national levels of administration, multiplying the points of necessary coordination and of bureaucratic conflict. As Pressman and Wildavsky (1973) point out, the greater the integration required in a program, the more likely it becomes that bureaucratic constraints may veto the program's effective implementation. There may indeed be a tradeoff between the possible benefits coming from synergistic linkages among separate program activities and the bureaucratic costs of involving many different agencies which require coordinated activities for successful production of the synergistic effects.

The general principle of synergistic effects, which yield the technical or "natural" efficiencies available through PHC programs, are relatively well understood. They may be briefly reviewed in terms of the complementary categories of "synergies" and "linkages".(37) Synergies are defined as the "biological

zational problems of development, as well as the economic and technical bases of poverty." This view is similar to the rationale set out for integrated designs in much of the PHC literature. The "holistic" concept is useful for pointing to the interrelatedness of problems, program design, and the environment. Our use of the term "integrated" is more general, however; we use it to refer to a lack of fragmentation in PHC activities, particularly in relation to intersectoral programs, including those explicitly based on "holistic" principles.

(37) There is a wide literature on the interactions which affect health status outcomes in rural areas, for use particularly in health planning. Family Health Care (1979) contains a comprehensive review of the interactions among health, population, nutrition, and education. Here we follow the discussion by Kocher and Cash (1977:20).

interaction between the health and nutritional condition of a person;" there is strong evidence of these effects, although it is doubtful that a quantitative assessment can be made of this relationship. Linkages are defined as those interactions which are not biological in nature, but which are essentially "reinforcing of each other, particularly through their effects on behavior." The rationale is thus advanced that, "while each separate intervention can make an important contribution to improved health and nutritional status, the effectiveness of each is enhanced when combined with other interventions" (p. 26). Beyond the close interaction of health and nutrition activities, the other sectoral elements of the PHC model, such as water supply, sanitation, and education, are mutually reinforcing in their effects on health status as well. PHC programs may be designed to capture these interactions, based on the health conditions of a specific country or region. (38)

In addition, integration may also offer efficiencies in administration and service delivery, through the sharing of staff and facilities (this point is discussed in greater detail below). We may expect that the choice of PHC design in a given country will be determined to at least some degree by evidence of the potential efficacy of the selected combination of inputs, and of the opportunities for resource sharing. Thus, the more activities that are included in this design, the greater will be the predicted benefits from integration. Similar considerations hold in relation to PHC activities within the health agency itself. Rural health activities do not stand alone, but they must be related to "basic health services" and other MOH programs, including hospitals (WHO, 1981:30-31). It is clear that the interactive effects described above will contribute to the effectiveness of both PHC and vertical disease control programs when they are coordinated, for example, and that administrative and operating efficiencies will be achieved as a greater share of health agency resources are available to the PHC effort. These points have been demonstrated in the experience of some countries, where PHC

(38) Kocher and Cash set out two questions to be considered in program design: (1) What is the optimal allocation of resources among the various potential interventions, or what is the opportunity cost of alternative packages or mixes of interventions? and (2) What are the delivery system implications of the contribution to health and nutritional status made by different packages or mixes? The authors discuss these issues, and recommend a "minimum package" of Basic Needs interventions, consisting of interlinked adult education, PHC and disease control, and nutritional programs. These priorities represent only a guideline, however, since the biological and behavioral effects of specific PHC components will vary according to conditions in different settings.

has been linked to the basic health service system (see O'Connor, 1979). This literature suggests the following hypothesis:

67. The greater is the scope of activities related to PHC that are included in an integrated program, the more likely it is that synergistic effects and reduction of duplication will lead to more effective implementation of PHC programs.

By contrast, following the logic of Pressman and Wildavsky, it has been found that intrasectoral coordination for PHC is often poor. In particular, vertical disease programs in many countries are not yet integrated with PHC (WHO, 1981:27). There are a number of possible reasons for this, including the protection of bureaucratic "turf," the historical course of PHC development, and a lack of organizational capacity. Yet however arrived at, the result is frequently a fragmentation of decisionmaking in areas that concern PHC, and inefficiencies in the administration and delivery of PHC services. These various problems have been described in a number of sources. (39)

It may thus be expected that the coordination of relevant MOH activities through formal unification or simply through strong linkages, will enhance the effectiveness of PHC. The degree of fragmentation of PHC within the health agency may be determined from budget figures, although available data may be difficult to work with. One measure of integration is likely to be the presence of a single agency division that controls rural health activities, or which actively coordinates those activities. Thus,

68. The more the various activities of an integrated approach to PHC are assigned to a single or dominant agency (such as the Ministry of Health), and to a specific division within that agency, the more likely it is that integrated PHC strategies will be effectively implemented.

The specific features of integration come into play only in relation to the various levels at which PHC activities are coordinated. Coordination must be present at all levels, and this will involve different functions at different points in the

(39) As noted earlier, Bossert (1981) has examined the unfavorable outcomes of fragmented PHC administration in Central American countries. Hartwig (1979) presents the further case of PHC-related activities that have become isolated from the health agency; he discusses the problems of service duplication and quality decline that have resulted from a loss of communication and support from the Kenyan MOH.

health agency hierarchy. However, the available evidence indicates that it is difficult to establish satisfactory intersectoral cooperation in PHC; this is especially the case at the center of the health system.(40) Although the region is also a focal point for coordination, the most success in this regard has been experienced at the local level, this appears to be the most promising location for introducing integrated functions in PHC. Baumslag et al. (1978, II:10), for example, report that most coordination in the AID projects did in fact occur at low levels, in the provision of service components. Kocher and Cash (1977:41) observe that "direct links have the best chance of working at the village level, through multipurpose workers and the sharing of facilities and equipment." This view is summarized in the JCHP report, which concludes that "it may in fact be easier to get cooperation underway at the local or district level, especially in the presence of government decentralization and community involvement," due to prevailing work patterns and informal networks, and proximity to the target population.(41) The degree of coordination at different levels may be assessed in terms of joint planning and administration, and the sharing of personnel. We hypothesize,

69. Integration of PHC will be more effective, the lower the administrative level at which most activities are coordinated.

(40) As has been described earlier, various means for the coordination of health planning and policymaking, such as interministerial councils, have been adopted in some countries. For the tasks of administering coordinated programs, however, the JCHP study found some instances of interrelated programs, but overall "little evidence of innovative and effective mechanisms at the center" (WHO, 1981:18).

(41) (WHO, 1981:18). In support of this, the study notes that, "The formality of interministerial institutions is avoided; the scale is smaller and the people involved usually know each other better. Local (district) health personnel interacting with officials from other agencies (agriculture, public works, community development and education, for example), and with representatives of political structures and the general population, are often better placed to find workable responses to local problems than higher-placed officials in the capital. The success of intersectoral cooperation at lower administrative levels may well provide the basis needed for effective coordination amongst the departments of the central government." This is consistent with the IRD finding reported above that in a system where power is imbalanced, implementation is more effective when the weight is at the bottom.

Central to the question of integration and implicit in the discussion thus far are the issues of organizational capacity and the functions that are to be integrated. These factors are closely related to organizational design and to the likely efficiency of coordinated operations. Using a distinction made in the IRD literature, it is seen that the sharing of resources, which is commonly done in PHC programs, requires substantially greater capacity and adaptation than does the sharing of information alone. (42) A substantial amount of work has been done in the field of family planning on the efficiencies that may be gained through joint administration and operations among service sectors. The principal lesson that may be drawn for PHC, regardless of the service components included in the program, is that linkages can easily be pushed beyond the capacity of the organizations and workers involved. For example, multipurpose workers may be given too many tasks, and, especially where there is variation among the tasks and in the incentives for performing them, it is more efficient to use several single-purpose workers (Kocher and Cash, 1977:41-2). The sharing of organizational resources between agencies has also been widely observed to lead to inefficiencies. In his study of a PHC program in Mali, Brinkerhoff (1979:21-5) found that coordination resulted in "sharing the deficiencies and problems of other units, as well as gaining access to their experience and competence;" staff turnover was high, and conflicts arose over responsibilities and over the utilization of resources, such as vehicles, office supplies, and telephone services. Efficiencies from coordination will be most useful where resources are scarce, but it is in this situation that conflicts are likely to be most severe. We may expect that, as a basic requirement, coordination must be feasible in terms of the organization and resources of all participating agencies before the strategy will be beneficial. Information on the appropriateness of organizational design must probably be obtained from case materials and from interviews. Budget and staffing levels are probably the most reliable measures of organizational capacity here. In general,

(42) Honadle et al. (1980) describe the different organizational models implied by what is being shared. Information sharing needs only loose linkages and may involve many autonomous agencies, but it usually requires central coordination and the presence of an information system. The sharing of other resources such as staff and facilities is best accomplished through a combined organization, in which there is greater power at lower levels, a need for greater attention to coordinative mechanisms, and consequently greater impacts on parent agencies.

70. Integration will be an effective strategy only where the functions to be coordinated are well defined and reflected in written plans, and where they do not extend beyond the capacity of the organizations and individuals involved.

To conclude: Considerable advantage can be drawn from integrating PHC activities and by enhanced coordination among different agencies whose programs impinge on health levels in the community. It appears, however, that there are at least three limiting conditions on the effectiveness of integration. First, a single or dominant agency may be required to overcome the constraints of bureaucratic politics which undermine coordinated efforts. Second, integration of activities is likely to be most effective if it occurs primarily at the lower levels of the administrative hierarchy. Finally, local-level personnel should not be burdened with too many diverse tasks in carrying out integrated programs.

IV. THE DELIVERY OF PHC SERVICES

A. Introduction

The third stage of the policy process, and a further point at which factors arise which influence the performance and success of PHC, is that of the actual operation of PHC programs. It is in the community setting, at the interface of PHC with its intended beneficiaries, that most analysts have in fact focused their attention. Roemer (1976), for example, has written extensively about the "special problems in rural areas"--of facilities, manpower, transportation, etc.--that constitute major elements in the design of PHC services. A variety of manuals and guidebooks have been published which discuss these and other "practical" issues in depth (e.g., King, 1966; WHO, 1976; Smith, 1978). Much of the operation of programs in the community can indeed only be discussed in terms of clinical considerations. However, without reaching this level of detail we may identify at least three types of factors which influence the extent to which PHC programs are able to achieve their goals:

1. The socioeconomic and political structure of communities, which determine program access to the target population and the possibilities for community involvement;
2. The nature of existing health care services in the community; and
3. The presence of administrative support for the PHC program, and its relationship to the availability of community resources.

As discussed above in Chapter I, basic measures of the "outputs" or "success" of service delivery include:

1. rates of PHC service utilization by the beneficiary population (and more importantly, changes in these utilization rates); and
2. the extent of community participation in program activities.

For several reasons, the systematic study of PHC at the community level is relatively difficult. In the first place, there is substantial variation among local settings, both within countries and between countries, which makes generalization about the relationship of inputs to PHC outputs very problematic. Second,

even where services are provided, it is often not possible to judge how well they correspond to local needs and to underlying program capabilities. Finally, a variety of cultural, social, and political factors affect how service utilization is translated into effects on health status; thus, as described in Chapter I, the "outputs" at this level are only proxy measures for the technical "outcomes" of PHC. Data collected in the community setting is, as a result, likely to be unreliable for purposes of generalization, and cross-national comparison of PHC programs may be expected to be weakest at the community level. The hypotheses contained in this chapter are therefore schematic, and brief rather than exhaustive.

B. Socio-Political Structure

A number of structural conditions that are present at the community level may greatly influence the ability of a particular program to reach its target population. As at the national level, local politics is an arena for the promotion of competing claims, in which benefits of all kinds, including PHC, are distributed according to the organization of existing resources. As discussed by a number of authors (including Grindle, 1980:31-32), government program benefits are often not provided as intended because of local political and bureaucratic relations. In many communities the distribution of resources is closely aligned with the pattern of social cleavages, along ethnic, religious, or other cultural lines. To the extent that these political, economic, and social barriers isolate the interests of beneficiary groups, there may be in fact only limited prospects for the acceptance of any government intervention.

In many cases, access to the target population is most strongly reflected by the degree of community participation in PHC activities. A central feature of the operation of PHC programs is their encouragement of, and reliance on, participation by the local population; this follows closely from the principles of the "basic needs" approach to development. The success of many PHC programs has been argued to be related to the ability to generate initial community interest, to organize participation in all aspects of PHC operations, and to obtain an ongoing commitment to program support. Among the benefits of community involvement are improved communication between health workers and the local population, greater flexibility and responsiveness in program operations, and an increase in the contribution of local resources. (1)

(1) See, for example, Djukanovich and Mach (1975); Field (1978); and WHO (1979).

Community participation in different types of development programs has been the subject of a large literature, and we cannot discuss here the wide variations that are found in its functions, mechanisms, and impacts. We may, however, briefly summarize a set of generalizations about participation that were made in a recent state-of-the-art paper:

- * Participation is not a single thing, but rather a rubric or heading under which a variety of distinct, though related, activities can be analyzed and promoted.
- * Participation for development is not the same thing as participation in politics; it is broader, with a wider range of goals.
- * Participation is not an end in itself, but it is more than simply a means to other ends.
- * Participation is not a panacea: it often appears to be necessary, but it is not sufficient, for project success.
- * Participation cannot be separated from administration; the view that "only the people can help themselves" is as unreflective as a narrow focus on bureaucratic processes.
- * Participation can be frustrating as well as helpful; it may strain administrative capacity and complicate program logistics, at the same time as it contributes to program benefits.
- * There is a connection among different kinds of participation, although there is only fragmentary evidence about the exact relationships between involvement in decisionmaking and the wider distribution of project benefits.
- * Even as a "development" activity, participation is inescapably political--as is any activity that promotes change in the use and allocation of resources in society. (2)

Participation in PHC takes three principal forms, of which some combination is likely to be found in all program settings:

(2) (Uphoff et al., 1979:279-85). The overall conclusion of this study is that "participation is possible and, under many conditions, desirable to achieve the development goals set by LDC governments and development agencies (p. 284; see also Cohen and Uphoff, 1977). Much of this literature addresses participation in the context of multisectoral programs such as IRD. Thus, while findings such as these are broadly applicable to PHC, all generalizations about participation may not be immediately transferable to the health sector because of differences in program goals and strategies.

1. Involvement in the recruitment of PHC workers from the local community;
2. Involvement in decisionmaking and other program activities, which may include planning, oversight, and coordination with other sectors; and
3. The contribution of fees and other local resources.

Community participation, as one of the output measures in our analytic model, is thus important as an element of "content" of PHC, and its scope and intensity will be determined in part by elements in the design of specific programs. In addition, its form will vary according to features in the community, and to political and administrative conditions such as have been discussed in preceding chapters. As described in Chapter I, a large amount of documentation is available on the role of community participation in PHC programs, but there remains only a small number of studies that permit comparative generalizations to be drawn. This work includes many studies of individual countries, as well as several larger comparative studies which have been conducted principally under the sponsorship of WHO. Yet in only a few of these latter cases has there been an attempt to maintain a consistent unit of analysis, and to collect similar data across country settings. (3)

From these works and others, we are able to set out several preliminary hypotheses concerning participation in PHC, in relation to community-level characteristics. Specifically, these relate to the local distribution of power and resources; the social organization of communities, including the presence of social cleavages, cooperative values, and local organizations; and the relationship of the community to the national government, including the history of development programs in the local area. Further aspects of these topics are discussed in the following sections as well. In combination, these imply a set of "facilitating conditions" for effective access to the target population and community involvement in PHC. Because they are related to factors outside of particular communities, and to activities in sectors outside of PHC, it must be emphasized that their presence does not in any way ensure program success, although their absence is likely to constrain the capacity of PHC to reach and to involve its intended beneficiaries.

(3) See, for example, Newell (1971); Djukanovich and Mach (1975); WHO (1977); WHO (1979); WHO (1981). In particular, the 1977 study, which was conducted jointly by WHO and UNICEF, generated case studies of participation in PHC from nine countries (Botswana, Costa Rica, Indonesia, Mexico, Senegal, Sri Lanka, Vietnam, Western Samoa, and Yugoslavia) with a common data format.

First, a central aspect of the ability of a government PHC program to reach its target population has to do with the economic and political structure of the local setting, in terms of the distribution of resources which enable groups to make and enforce claims. Any community-targeted program represents a flow of services, which are capable of being diverted or "captured" by those with sufficient power. A question naturally arises, therefore, over the appeal (or threat) of the proposed change to current holders of power, prestige, and security (Bjorkman, 1980). As has been discussed in Chapter I, the "content" of PHC makes it somewhat resistant to accumulation and "capture" by the better-off.(4) Furthermore, PHC does not represent a "zero-sum game," in the sense that it extracts resources from one segment of the community and provide them to another. Regardless of these considerations, however, services are most likely to flow to those who are already advantaged, unless specific contravening efforts are made. Agarwal (1974), for instance, describes the general tendency of rural health programs in India to benefit the rich farmers who dominate village councils, frequently leaving the poor with little access to services.

The literature clearly shows that the distribution of power--whether measured in economic terms, as by the distribution of land and income, or politically, as by the representativeness of local government structures--may influence all aspects of PHC operations. Because of the recognized need to introduce PHC through community leaders and to gain their sponsorship (Management Sciences for Health, 1979:5-6; Pyle, 1979:32), it is important that leaders be responsive to the interests of the poor.

A second major point at which programs are shaped locally is in the selection of candidates for village health worker (VHW) positions, which is a community function in many PHC programs.(5) Much of the success of China's PHC system has been attributed to the institutionalization of local VHW selection; O'Connor (1980) describes the relatively formal procedure used in Afghanistan to recruit VHWs, focusing on mature, settled residents of the community. In Iran, however, similar processes were found to lead often to the selection of the kinsmen of village headman for paraprofessional jobs, and to a tendency to exclude women from these positions (Ronaghy and Solter, 1974). Likewise, Banerji (1974) describes the intrusion of community politics into worker recruitment in the early stages of India's rural health program,

(4) That is, while services are clearly visible in the community, they do not generate a highly tangible product which can be hoarded, diverted, or divided up (e.g., Uphoff, 1980:43-45).

(5) (E.g., Esman et al., 1980:23). Pyle (1979:35) similarly stresses the need for VHWs to be selected "in partnership with the community."

where young unemployed graduates who had returned to their communities were given a large proportion of VHW positions. As noted by Uphoff et al. (1979:246), such practices are likely to lead to a high turnover rate among workers, and reinforce an already skewed distribution of health resources. Finally, the strength of community participation also appears to be directly related to local government structure. The study by WHO/UNICEF, for example, found that participation was most successful in communities whose decisionmaking processes allowed a broad range of input and initiative, and where authority and power were exercised in an egalitarian rather than vertical manner (WHO, 1977). In general,

71. The more equitable is the distribution of economic and political resources at the local level, the greater is the likelihood that PHC services will effectively reach the target population.

And,

72. The more open and representative are local governmental structures, the more effective will be community participation in PHC.

In many instances the distribution of local resources is closely related to the social composition of the population, and to the presence of cleavages along ethnic, religious, political, or other lines. Although much of the discussion of the political implications of social cleavages focuses on inter-regional distinctions and their impacts on resource allocation at the national level (e.g., Young, 1976; Uphoff, 1980:58), even within communities differences in social status and power may lead to inequities in the coverage of PHC and other programs. Program benefits may be controlled by dominant groups, to the exclusion of others who may be among the intended target population; such restrictions may be deliberate, or be the result of traditional patterns of group separation (Elling, 1980a:205). For example, low-caste groups in India have been observed to be excluded from health facilities which are sited in more affluent areas of the community, or which are staffed by workers who are members of higher castes (ICMR, 1976). In Central America, Indians are often found to be unserved by programs which are controlled by dominant non-Indian groups (Bossert, 1982). Furthermore, cultural cleavages are usually reinforced by other social divisions such as membership in or allegiance to different political parties. These issues are particularly significant for PHC, in that the program objectives emphasize the weaker segments of the population that are most likely to be excluded on many different grounds. (6) Finally, cleavages are also seen to influence the

(6) For a more detailed treatment of these points, see Uphoff et

effectiveness of community involvement in PHC activities. Evidence on this point is limited, but the WHO/UNICEF study cited earlier, for example, found that successful participation efforts in PHC tended to be associated with greater socioeconomic and cultural homogeneity of local communities, and an absence of pronounced ethnic or religious stratification (WHO, 1977). In general, it may be expected that the presence of any major cleavages will diminish the probability of equitable program coverage and full participation by beneficiaries. We hypothesize,

73. The greater is the social, ethnic, religious, and political homogeneity of the population in a community, the more likely it is that PHC programs will reach their intended beneficiaries and incorporate local participation.

A further constraint on the provision and use of PHC services may arise where there are significant barriers between the target group and the national government. As was discussed in Chapter II, PHC and similar programs may be initiated by regimes which have an unstable relationship to the population, as a means of expanding their base of support. (7) Where there remain major ideological differences between the target group and the government, however, the program may prove unacceptable to its intended beneficiaries. (8) Barriers may also arise due to ethnic, religious, or other differences between the regime and the target population, which may be reflected in cleavages at the local level. In all cases, the significance of these factors must be determined in relation to specific communities and governments. Overall,

74. The fewer are the ideological, social, and cultural barriers between the regime and the target group for PHC, the more probable is the utilization of PHC services.

al. (1979).

- (7) This strategy may be considered less useful if the target group is among the "unmobilized sectors" of the population, which do not participate significantly in the political process.
- (8) In the extreme case, the target group may be among the "extra-stability sectors" which are actively opposed to the regime. More commonly, a lack of acceptability is likely to derive from various implications of involvement in government activities.

Furthermore, regime attitudes toward the target population may greatly influence the degree to which program benefits are in fact extended, particularly in regard to the possibilities for community participation. The JCHP study, for example, discusses the likely nature of participation in different socio-political situations, distinguishing among "unfavorable," "politically tolerant," and "socialist country" circumstances (WHO, 1981). The report suggests for the first case that community involvement will be ineffective and difficult to maintain, especially where the hostility of both the government and local elites is aroused. Under "political tolerance," participation is seen as contributing to the goals of PHC, as well as to the broader processes of self-reliant development. In socialist settings, regime ideology is seen as encouraging the mobilization of political support, although it is noted that the mechanisms employed may in fact inhibit free expression. These cases are clearly composite types which may not fully reflect the situations of specific countries, but the case studies that are offered illustrate the role of the national government in determining the potential scope and usefulness of participation. Other studies in the development literature also demonstrate this relationship, for example in countries where effective initial mobilization efforts are later curtailed by resistant or hesitant governments (Bossert, 1982). In general, it appears that

75. The greater is the national political support for community participation, the greater will be the contribution of local involvement to PHC program performance.

Closely related to the preceding issues are the effects of cultural values which surround social activity and which condition, in particular, the prospects for community involvement in PHC. The JCHP study, for instance, describes the variety of ways in which cultural attitudes may influence the potential for community acceptance of PHC and the likely scope of participation, potentially in contradictory directions:

"The ethos of some societies, in which traditional values of obedience, respect and subordination remain important, places obstacles in the way of active and innovative community participation. When such values are combined with a strong emphasis on charity and good works, as in Buddhism, participation may well be essentially passive, and express itself mainly through the giving of donations for community health activities. On the other hand, where community members are willing to accept the instructions of elders and other village leaders, and the latter are 'modernizers,' the very structure of the community and its values may be gradually transformed. These varied forces, sometimes pull-

ing in opposite directions, are at work in Burma" (WHO, 1981:22).

In assessing the "exportability" of the China's PHC system, Ronaghy and Solter (1974) found that the prevalence of rivalries and individual rather than cooperative values in Iran limited the transfer of the Chinese model, which is based on stronger values of communal support. Field (1977) ascribed much of the success of a PHC project in southern India to values of openness and respect which were embodied in the strategy. Considering a larger sample of cases, the WHO/UNICEF participation study observed that communities with successful local involvement in PHC tended to have a history of mutual involvement and communal work patterns (WHO, 1977). The need to respond to local values and attitudes during the introduction of PHC is reflected in the significance that is attached to educational components by many authors (e.g., Van Wijk-Sijbesma, 1979). Although it is difficult to determine the exact content and durability of cultural values even in specific cases, or to identify the most effective approaches to promoting changes in them, the available evidence indicates that attention to this area is not misplaced. In general,

76. The stronger are cultural values favoring communal activity and cooperation, the stronger will be community support for PHC and the more effective will be local participation in PHC operations.

One important means for mobilizing community support and involvement in PHC is the linkage of program activities with those of existing local organizations and social service networks. Review of the literature on paraprofessionals, as well as many case studies, indicates that PHC programs tend to be more effective when linked with some form of local organization (Esman et al., 1980:82; Colle et al., 1979). Such organizations may take a variety of forms. On the one hand, they may have been developed specifically for health-related activities, in which case the linkage process will be relatively direct. Such organizations include local health committees, or mothers' clubs or other groups established to promote family planning.(9) Somewhat less common are broadly-based local organizations designed to promote a wide range of development efforts, particularly in agriculture. Health care tends to form a minor part of the activities of these structures, but the opportunities for including PHC in their agendas are clearly present and the literature strongly suggests the usefulness of such linkages.

(9) The formation and use of health committees is a central element of the PHC programs of many countries; a single-sector focus has the advantage of reducing ambiguity over the nature of community involvement (Esman et al., 1980:83).

Local organizations for rural development have been the subject of a significant literature over the past decade (see, for example, the case studies analyzed in Uphoff and Esman, 1974; also Uphoff et al., 1979; Korten, 1980). The "local organization" model encompasses a number of different forms, and is distinguished chiefly in its contrast to state-administered, private, and political networks. As described by Uphoff and Esman (pp. 23-26), their objectives are generally diffuse, involving the improvement of agricultural productivity, rural incomes, and rural population welfare (through health care, nutrition, education, and other activities). Pyle (1979:42) stresses the role of local organizations in the acquisition of political power by the poor. Conditions cited for organizational effectiveness closely follow the points set out in our preceding hypotheses: that there should be local initiative in development and an equitable distribution of economic assets; in addition, performance appears to be associated with the number of levels at which an organization is active, the number of channels through which it operates, and the range of functions that are performed (Uphoff and Esman, 1974:63-75). In view of the wide variety of such organizations, however, it must be emphasized that all of these generalizations must be tested in regard to specific situations.

The JCHP study cites a number of case studies of PHC involvement through local organizations, noting the advantages of intersectoral coordination: "By establishing links with such organizations at the community level, the health care system can mobilize people through mechanisms that are familiar to them, setting health in the wider context of local experience rather than excluding this by operating separate 'health committees'" (WHO, 1981:24). The earlier WHO/UNICEF study similarly pointed to the success of PHC interventions which made use of prevailing patterns of community organization of any type (WHO, 1977; see also Korten, 1980).

Different country and community circumstances will determine whether local organizations are best organized along sectoral, political, and/or other lines. (10) What is important is that some organized health program function is carried out. Where a specific health committee is not found, program promotion may be conducted under the auspices of broader community development committees; focused health committees may be developed out of these or other local councils, or they may be freshly started. However organized, committees may come to take part in local-level health planning, personnel selection, management decisionmaking, and the provision of feedback and support (Colle et al., 1979:31-34). Recognizing the variation in the forms of local

(10) Esman et al. (1980:82,89), for instance, found no inherent relationship between PHC program success and the degree of involvement in political activities.

organization, we may hypothesize,

77. The greater are the avenues for channeling participation through existing local organizations, whether focused on health-related activities or serving wider purposes, the more effective will be community utilization of PHC services.

One important basis for the development of local organizations for PHC is the presence of other government programs that incorporate community involvement. Such programs may be in specific sectors (e.g., nutrition, education, family planning, public works), or they may be explicitly intersectoral in nature. The presence of related participatory programs thus offers a springboard for participation in PHC; perhaps more importantly, the success of earlier efforts demonstrates the potential for local involvement in government activities, and reflects the willingness of the bureaucracy of the regime to promote this involvement (Grindle, 1980). Rural extension programs in different sectors have been observed for some time to fulfil both of these purposes for PHC (WHO, 1977). (11) Despite the availability of scattered case examples, evidence on the cross-program promotion remains fragmentary. However, we may tentatively generalize,

78. The stronger is the presence of other government programs in rural areas, and the more successful has been their experience with community involvement, the greater is the potential for successful participation in and utilization of PHC.

Our hypotheses in this section have set out some general conditions which are likely to affect the ability of PHC programs to effectively reach their target populations, and the prospects for participation in PHC activities by community members. These factors relate as well to a number of the political and administrative conditions that have been discussed earlier in this report, but they may also be independently significant at the community

(11) At the same time, however, previous government-sponsored programs may have had negative effects at the community level, and so may reflect unfavorably on the prospects for PHC. A major example here is found in the experience of family planning programs, which have in some countries alienated rural populations. In India, for example, the early identification of community health programs with family planning led to limitations on the utilization of rural health services (Banerji, 1974). These cases suggest that care must be taken in the development of linkages in PHC design.

level. The implications for policy action are limited, because of the lack of control that can be exercised in this area by external agencies. At minimum, it may be suggested that PHC programs are not likely to be successful where most of these conditions are not met. Donor support can be used most effectively where economic, political, and cultural conditions favor PHC; when these conditions are absent, it appears that external assistance can be most productively used for more restricted types of health and development services. Beyond this, the fostering of local organization support for PHC, as appropriate to national political conditions, appears to offer the greatest opportunities for PHC promotion. In the following sections we build on these considerations, and relate them to aspects of local health systems and program resources, to provide a framework for the generation of more concrete assistance strategies.

C. The Local Health System

The experience of PHC programs has demonstrated that the introduction and operation of rural health health services must be viewed in the context of the entire local health care system, a perspective which is clearly reflected in the PHC literature. In this section we outline a number of characteristics of existing community health services which influence both the design of health services and the probability of their effectiveness. Of chief concern is the relationship of PHC to prevailing conditions of demand and supply: new services will be accepted and utilized to the extent that they meet "unmet, felt needs" for health care in the community. When needs are not perceived, or when PHC is not perceived as responding to them, populations cannot be expected to make use of them, regardless of program capacity (Banerji, 1974). Our hypotheses cover, first, basic factors that are expected to determine the demand for PHC: the epidemiological situation in the community, utilization patterns of both traditional and modern health, and the overall supply and costs of health services. We then turn to features of the traditional and modern services which affect the implementation of PHC programs.

The first and perhaps most general determinant of the effectiveness of PHC in achieving its objectives has to do with the existing health conditions in the community. Disease prevalence, nutritional status, sanitation, occupational hazards, environmental conditions, and a variety of other factors all define the epidemiological situation in the local area or region, which sets the baseline needs for health care. The contribution of these factors varies substantially both between and within countries, particularly in regard to different population groups. In addition, the perceived significance of health conditions may be at variance from "objective" assessments. For these reasons, generalization about the relative importance of these factors is obvi-

ously problematic. However, it may be seen that in the aggregate, health status levels and their interpretation by the community form the starting point for any approach which is taken to their improvement. The point appears to be often overlooked that programs must be designed to respond to the most serious health problems in the community, as determined, for example, by epidemiological surveys and local interviews (Cassell, 1976; Berggren et al., 1981). Education components are generally incorporated into program strategies in order to heighten the population's awareness of these problems, and of the benefits that may be realized through PHC-related activities. Overall,

79. The lower are health status levels in the community, and the more seriously these are perceived by community members, the more likely is the acceptance and utilization of PHC services.

It is rarely if ever the case that PHC is introduced into a "health service void"; rather, programs operate in a setting composed of a typically wide range of other health care providers. Prominent among these are the diverse group of traditional or indigenous healers that are an element of all cultures and societies. This category includes practitioners in long-standing traditions (such as Ayurvedic healers in India), as well as others types which have often developed after contact with modern medicine (e.g., injection doctors and pharmacists). The content and distribution of functions performed by these practitioners ranges considerably, as described in Chapter I. Particularly in more traditional cultures which have maintained some isolation from the urban sector, indigenous healers are likely to have high social standing. Yet even in rapidly changing societies they continue to provide health services which are often unavailable through alternative modes of care. (12) It may be expected that the demand for PHC will be limited to the extent that such providers meet a large proportion of a community's health needs; furthermore, in this situation it is likely that traditional practitioners will actively resist the introduction of PHC or other health services that are perceived to be competitive (Kleinman, 1978). Initially we hypothesize,

80. The greater is the supply of traditional health practitioners (and pharmacists), and the greater is their utilization by the local population, the lower will be the demand for PHC and the more difficult it will be to introduce PHC services.

(12) The prospects for their future, and associated policy implications, are discussed elsewhere in this report. For a comprehensive bibliography on traditional medicine, see Singer and Titus (1980).

A second major influence on the relative demand for PHC services is the community's exposure to "modern medicine," and the local availability of "modern" health care. There is considerable documentation of the preference on the part of rural populations in developing countries for the level of services represented by formally trained physicians, hospital-based treatment, and the use of manufactured pharmaceuticals. This pattern of demand is clearly reinforced both by its association with urbanization and development, and by the demonstrated efficacy of such treatment for many common health conditions. As pointed out by Mburu (1976) and others, the role of modern medicine in symbolizing socioeconomic development and the improvement of living standards is reflected in the nearly universal building of high-technology urban hospitals with scarce health resources. In rural areas, the application of medical technology has led to corresponding changes in attitudes towards health care, and a desire to change certain formerly prevalent health conditions. As a result of the penetration of the Western model of medicine, alternatives to physician-provided services such as PHC are widely considered to be "second-class medicine" (e.g., Ronaghy and Solter, 1974; Bossert, 1982). Thus, despite the potentially lower costs of PHC as well as various traditional modes of care, the perceived quality of modern medicine has brought about a notable reorientation of rural attitudes to health.(13) This perspective is strengthened by exposure to modern medical values through the media and through urban-rural migration patterns (Bjorkman, 1979). Thus, where physicians make up a large part of the health system in rural areas (as is found in many countries), their presence is likely to further intensify this demand as well. In addition, the linkage of local physicians with professional groups at the national level may be expected to increase their effectiveness at resisting the introduction of PHC.(14) We

(13) This phenomenon is widely recognized in the anthropological literature; see, for example, Foster (1978). In addition, effects on the supply as well as the demand for rural health services are cited in the comparative literature. Ronaghy and Solter (1974) observe that the stability of the barefoot doctor model in China is supported by cultural attitudes favoring appropriateness of care and preventive activities, whereas paraprofessionals in many other countries often migrate or seek to move into more formal medical practice. Some writers have argued on the basis of this evidence that urban medical care is being short-changed in the drive towards PHC (e.g., Cook, 1976).

(14) Local physician resistance to PHC programs may best be considered as an extension of the physician response at the policy level that was discussed in Chapter II. It is distinct, however, in that it is mediated in large part by user demand. Although evidence here is fragmentary, there are

hypothesize,

81. The greater is the exposure of local populations to modern medicine through communication and migration patterns, the lower will be the utilization of PHC and other non-physician health services.

And,

82. The greater is the supply of physicians in rural areas, the lower is the probability of effective implementation of PHC.

In addition to traditional and modern private practitioners, the supply of local health providers frequently includes other government programs, such as public health clinics and health posts; disease-control stations; and related services such as nutrition programs which fall within the range of PHC functions. To the extent that these services are not administratively integrated with PHC, they represent potential competitors with PHC care. A variety of voluntary agency-managed health services, such as those run by churches and domestic and international charitable agencies, are often available as well. (15) Here again, PHC may be viewed as competitive with existing services if its introduction is not explicitly rationalized to avoid this (for an early critique on this point, see Paddock and Paddock, 1975). We offer a summary hypothesis:

83. The greater is the supply of non-PHC health services in a country, and the less these services are rationalized, the lower is the probability of successful PHC utilization and participation at the local level.

The impacts of the supply and organization of existing health services on the prospects for PHC effectiveness are further mediated by the relative costs of the different types of health

strong indications that this dynamic is an important factor in PHC effectiveness in communities.

(15) On church-operated health services, see Hartwig (1979). The literature on PVO-sponsored health projects is more substantial, but unfortunately it rarely addresses aggregate dimensions of the scope, quality, and population coverage of these services. A limited attempt in this regard is seen in the survey by APHA (1977, and later materials), but here as in almost all cases, the focus is on specific projects rather than on area parameters. See also Cole-King (1979), and our discussion above in Chapter II.

services. Issues of the cost of PHC in relation to overall community resources and to prevailing patterns of health care expenditure are discussed at a general level in the PHC "strategy" literature, and they are addressed as well in many program evaluation documents. Nonetheless, this subject has not been dealt with extensively in comparative analyses, although it is coming under the increasing attention of national governments and donor agencies. Local contributions to PHC are indeed viewed as essential to meeting recurrent programs costs and to the establishment of local accountability--and thus to the long-run stability of PHC activities (e.g., Pyle, 1979:38; Esman et al., 1980:93). It is recognized that local contributions cannot be expected to substitute for government resource allocation to PHC (WHO, 1981:31); at the same time, fee schedules and other community support levels must be established so as to be reasonable in the context of the local health care system. (16) Agarwal (1974) points out that acceptable levels of community contribution to PHC are highly sensitive to patterns of demand. Similarly, Bjorkman (1979) shows that cost variations are important in the selection of health care providers by rural populations in India. Thus, while relative costs are in some measure a "content" factor in PHC services, they are also contingent upon prevailing economic patterns in the local health care system. We hypothesize,

84. The lower are the costs to the community of PHC, relative to the costs of other available health services, the greater will be the utilization of PHC.

The introduction and rationalization of PHC within local health systems has at least two further aspects which relate to the provider categories described above. The first of these concerns the linkage of PHC services with traditional modes of care. As was discussed at the policy level in Chapter II, the gradual incorporation of indigenous healers into the PHC model is an attractive and frequently necessary strategy (see also ICMR, 1976:200). As summarized by Uphoff et al. (1979:249),

"conflicts may sometimes may be avoided by retraining and incorporating traditional healers into the modern health delivery system, provided, of course, they are willing to accept this option. Because these practitioners have a preexisting clientele, such an approach would also minimize problems of legitimizing new treatments and care. Furthermore, recent evidence indicates that traditional health practices are often more effective than commonly assumed by western medical

(16) The issue of local resource capacity and its relation to the provision of government program support is discussed more fully in the following section.

experts." (17)

Several design features of PHC may facilitate the incorporation of traditional practitioners. Paraprofessional jobs may be simplified or focused in order to permit an easier shift to PHC roles; the wide range of VHW job descriptions shown in many surveys is in large part a response to existing skill levels of various indigenous workers (e.g., APHA, 1977; Baumslag et al., 1978; Colle et al., 1979). In addition, a responsiveness to traditional values in PHC service delivery combined with educational activities is widely recommended (O'Connor, 1980; WHO, 1981:22). However, certain characteristics of the traditional system are likely to influence the willingness of indigenous healers to "accept these options." For example, the strength of religious beliefs underlying traditional modes of healing, other cultural attitudes and values concerning the role of the healer, and the degree of exposure to modern medicine will all affect the flexibility of the traditional system for adapting to PHC. In general,

85. The less rigid are the belief systems surrounding the traditional practice of medicine, the greater is the probability that indigenous healers can be successfully incorporated into PHC--and in turn, contribute to PHC utilization and participation by the community.

An opposite set of considerations govern the success of linkages between PHC and local physician-provided curative services. Although cases are cited where PHC and modern practice exist exclusively of one another in communities, the perception of competition is likely to make this arrangement unstable. Thus, when PHC programs are introduced, their effectiveness may rest on the deliberate avoidance of conflict with physicians (Denny, 1975). Over the long term, however, acceptance of PHC by local physicians appears to be best promoted by the presence of a referral system which defines the respective roles of different health providers in the community; such a system is also likely to expand the ability of local providers to meet community health needs. (18) Referral networks face the real risk of being

(17) Countervailing arguments have been offered as well; Foster (1978), for example, suggests that traditional practice be allowed to die out on its own. However, the evidence of numerous case studies generally demonstrates that passive strategies may not be effective.

(18) (Banerji, 1974; Cole-King, 1981; Habicht, 1981). The JCHP study in particular emphasizes the relation of community health care activities in the community to higher-level facilities and to the national hospital system (WHO, 1981:30).

dominated by physicians and a curative orientation to care, and if highly centralized they may serve to funnel patients away from more appropriate PHC services (Heller, 1978). Yet a rationalized referral system in most cases offers the best setting for the re-direction of physician attitudes, at the national as well as at the local level (Pyle, 1979; Cole-King, 1981). In all,

86. The stronger and better organized is a country's health care referral network and the better stronger it is at the local level, the greater is the likelihood that PHC can be effectively integrated into the national health service system, and that local-level utilization of PHC will grow.

As before, our hypotheses in this section refer primarily to factors over which policymakers and external agencies have little control, especially in the short run. If valid, they do suggest that a greater supply of traditional and modern practitioners is likely to diminish the chances for effectiveness of PHC initiatives. However, where the resulting competitive pressures are not overwhelming, measures may be usefully taken to promote the linkage of PHC with these other services, chiefly through the incorporation of traditional practice into PHC where possible and through the development of national health referral systems. An issue common to all of these points is the establishment of reasonable and competitive levels of community contribution and fees for PHC, in order to provide a functioning local health care marketplace.

D. Resource Requirements and Program Strategies

The availability of resources stands out as perhaps the most critical concern in the implementation of PHC at the community level. Requirements for financial and other program resources, and the appropriate mix of these resources between the health agency and the community, are at least partially determined by features of the community setting. In this chapter we briefly review the major community-level influences on PHC resource requirements, and relate these requirements to various strategies for resource development and allocation. The factors include, first, aspects of program logistics and infrastructure, and administrative characteristics of the health agency. The burden that is placed on health agency capability, as well as the economic situation of local areas, in turn influences the scope and level of contributions to PHC which must be made by communities. Different approaches to program support are then indicated, depending on the relative availability of resources from the agency and from the community.

A central factor in the ability of the health agency to deliver PHC services to rural populations is the physical accessibility of local areas. PHC maintains a continuing requirement for the provision of supplies and equipment and for managerial contact with program sites, and in many countries this presents a major barrier to PHC effectiveness. The physical distance of rural communities from health agency offices, as well as the quality of transportation and communication, thus affect virtually all aspects of PHC operations. In many projects, these elements may in fact consume a substantial proportion of PHC budgets. Physical accessibility may be limited in remote areas of the country, where road systems are often poorly developed and where weather may hinder the ability to keep in contact with local facilities. Certain types of target groups, such as nomadic populations, present additional problems in this regard. Transport conditions, in terms of the availability of vehicles, fuel, and staff may further constrain administrative support. These issues are not systematically addressed in the literature, owing in part to difficulties of generalizing over wide variations in program settings. A number of authors, however, have written about the impacts of these problems on service delivery in particular countries and projects. (19) Initially, then, we hypothesize,

87. The poorer is the physical accessibility of target populations and the greater are the requirements for transport, the less likely is effective implementation of PHC.

A second major administrative burden in PHC concerns the availability of drugs, equipment, and other essential supplies. Although PHC is designed to require minimum levels of program supplies, there may be severe limitations on the ability to maintain even basic stocks in community facilities. The supply of drugs is particularly important; a number of studies have shown that the credibility of community health services is highly sensitive to the ability to furnish drugs to clients, and that utilization may decline substantially where drugs cannot be provided (Evans et al., 1981:1120-21; Bossert, 1982). This concern reinforces the preceding proposition about the need for transport linkages. It is further necessary that agency supply sources, procurement procedures, and distribution networks be sufficiently reliable to ensure a steady flow of these supplies (Management Sciences for Health, 1979:3). In all,

(19) See, for example, Gish (1975); Banerji (1974); and Brinkerhoff (1980). Evaluation studies of specific PHC projects also commonly emphasize physical and transport problems, because of their significant impacts.

88. The more reliable are lines of supply for drugs and equipment to community sites, the greater will be the utilization and effectiveness of PHC services.

A third type of requirement for PHC administration is the availability of supervision and local management. This issue has been discussed to some extent in the preceding chapter, in terms of the need for quality control and agency responsiveness to local conditions. From the perspective of operations in the community, local managers are frequently seen as the relevant agency authority, and thus their presence contributes to program continuity and stability. Management at district and local levels is considered by some analysts to be the weakest link in PHC operations, and deficiencies in this area are frequently noted as a major constraint on the possibility of long-term PHC effectiveness (e.g., Evans et al., 1981:1121; Research Triangle Institute, 1978; Peachem, 1980). As discussed in Chapter III, decentralization of program responsibility has been proposed as one means of improving agency capacity at local levels; however, we have seen that while decentralization may have positive effects on communication and decisionmaking in PHC, in the absence of adequate resources within the agency as a whole it will not in itself provide the necessary standards of program support. Various approaches have been suggested in the PHC model for the meeting of local management needs; these include the establishment of specific intermediate-level health care functions and the expansion of community responsibility for program planning and oversight.(20) Yet while these approaches represent potentially useful alternatives to extensive local administrative involvement by the health agency, none has been demonstrated to obviate the requirement for ongoing management contact and support.(21)

(20) Intermediate-level practitioners have been promoted for a number of years both to enhance the relationship of PHC to the modern health care system and to provide local management capability. The "community diagnosis" approach to local-level assessment of health needs and appropriate service delivery has been described, for example, by King (1966), and more recently by Cassell (1976) and ICMR (1976). A more formal and better-trained intermediate role is that of the MEDEX (Smith, 1978). As discussed earlier in this chapter, community participation may provide members of the local population with greater authority over PHC planning, monitoring, and evaluation. Within the PHC model, however, questions remain over the degree to which community members can be expected to have the necessary technical capabilities and willingness to perform these functions regularly.

(21) On this point, see Esman et al. (1980:54); Banerji (1974); Management Sciences for Health (1979); Habicht and Berman

Overall,

89. The greater is the capability of the health agency to provide local-level management of PHC activities, the more effective will be the delivery of PHC services.

We may now turn to examine characteristics of the community itself which affect the availability of resources for PHC. One basic element of all human development and service programs is the need for facilities, labor, and other local contributions. The exact nature of the contributions that are appropriate will of course depend upon the design of the program; it will also depend on the overall level of resources that are potentially available in the community. "Resources" may be physical, such as buildings; financial, as in fees or insurance plans; or human, particularly in terms of the availability of community members for work on PHC activities and the skill levels and other personal characteristics brought to this work.(22) Without belaboring this point, it should at least be observed that many PHC programs have been introduced without the necessary assessment of available community resources (WHO, 1981). Keeping in mind the possibility of a "threshold" beyond above which higher levels of community resources might lead to a preference for competing curative health services, we generalize:

90. The greater are the overall levels of physical, financial, and human resources in a community, the more resources are potentially available to PHC programs and the greater is the likelihood of effective implementation.

Most simply, we have then two principal resource inputs to PHC, the health agency and the community. As discussed extensively in the development administration literature, there are many aspects of these inputs which determine their relative contributions to program operations.(23) Esman and Montgomery

(1979).

(22) In characterizing the types of inputs appropriate to different types of communities, Smith (1978) thus cites a distinction between capacity-creating (i.e., skill-building) and opportunity-creating (i.e., investment) activities.

(23) See, for example, Esman and Montgomery (1980). Our discussion at this point does not reflect many aspects of the relationships that are being addressed; our purpose is, rather, to briefly introduce strategic considerations. Readers are referred to this and other citations for further detail.

(1980:200) note that in the situation of high resource levels in both the agency and the community, major responsibilities should be conferred at the local level in order to maintain community support. In contrast to this situation, where the resources of both the agency and the community are weak, these authors suggest that only non-participative and administratively non-intensive activities be carried out; over the long run, institutional capabilities as well as local resources must be developed before programs such as PHC can be effectively carried out. Thus,

91. In the absence of significant resources in both the health agency and the community, the effectiveness of any but the most limited PHC efforts will not be great.

In the intermediate cases, where either agency resources or community resources are strong relative to the other, PHC programs must be developed in ways that take advantage of the stronger and improve the capacity of the weaker. Following the argument of Esman and Montgomery (p. 201), where administrative capability is weak but there are strong local resources, programs should be heavily weighted on community support and community networks:

92. In the presence of few resources at the agency level and greater resources in the community, PHC programs will be effective to the extent that they are built around local participation and contributions.

Where bureaucratic capabilities are strong but local resources are weak and poorly organized, the authors suggest the pursuit of human development activities that do not require public response and which improve local capacity. Such projects might include installing sanitation facilities, providing mass immunization, and the use of extension facilities to promote basic health services. As the authors note "The provision of services may be a first and necessary step in developing institutions in other fields as well. Health services may foster the development of local health committees, which may then facilitate the provision of nutrition and family planning services." (p. 202). In general,

93. In situations of weak local resources relative to administrative capacity, PHC programs will be successful only as they build local resources over the long run, but do not rely on local contributions for ongoing support.

To conclude, the effectiveness of service delivery in the community is truly "the proof of the PHC pudding." A program

that runs the hurdles of national politics to become adopted, and then is effectively administered through careful planning and management, may still fail because it has not accounted for local political conflicts, competition from other health services, and available local resources. These factors may not be malleable for policymakers, but PHC programs must nonetheless be designed to respond to such considerations. We suggest that PHC will be most effective in relatively homogeneous political and ethnic communities; in conflictual local settings, programs may have to be organized to avoid participation by conflicting groups. PHC programs should also be designed to avoid direct competition with existing traditional and modern practitioners in the community. If such competition is inevitable, PHC must be offered at significantly lower cost than the other services. Finally, a successful "fit" between PHC resource demands and the availability of local support requires that decisionmakers take into account transportation and supply needs as well as administrative capability at the local level. Strategies indicated by the above hypotheses are (1) to enhance the government supply of equipment, drugs, training, and supervision where community resources are scarce; and (2) to target or reduce such government supply when community resources can be provided.

V. RESEARCH METHODOLOGY

The preceding chapter has outlined a set of predicted relationships to fill in the general model of PHC policymaking and implementation that was introduced in Chapter I. The present chapter discusses issues in the testing of specific hypotheses, and leads up to a strategy for broader analysis of the model. This chapter is organized around three central questions, which must be addressed in any analysis:

1. What can we learn about PHC using this model?
2. What methods can be used for the analysis? and
3. What data are available for testing hypotheses?

The first of these questions concerns the explanatory range of the framework that has been developed--the nature of the inferences that may be drawn, and requirements for indicators of specific variables. The second relates to the methodology of comparative research--the types of tests that can be performed, and the design options for multiple-country studies. The final question focuses on the evidence that will be used in the analysis--the needs for different categories of information, and considerations of data availability and reliability. Based on this survey we propose a realistic strategy for research on PHC in Chapter VI.

A. Application of the Research Model

1. Interpretation of the Model

Our hypotheses have brought into consideration a wide selection of explanatory factors within three relatively separable stages of the PHC 'process'. The outputs of these stages are closely interrelated in the production of PHC services and, outside of the scope of this model, in the achievement of changes in population health status. Referring to this framework, we see that two broad classes of relationships are involved in accounting for PHC 'success'. First, there are those between contextual factors and the characteristic of PHC policies or programs which were made explicit in the hypotheses and are represented by vertical arrows: between 'political factors' and policy adoption, between 'administrative factors' and program administration, and between

'community-level' or 'operational' factors and the delivery of services. The second type of relationships are those among the three stages, represented by horizontal arrows: between the formulation of PHC policy, the administration of programs, and the delivery of services. The conclusion drawn from the review of the literature, and the basis of the critique made of previous research in this area, is that any analysis of PHC outcomes must proceed through these two phases. Based on examination of the dynamics in each of the stages of the model used, we may arrive at an understanding of the range of conditional influences on PHC effectiveness.

The precise number of stages attributed to the policy process is essentially arbitrary; a total of three (as opposed to two or six, for example) have been included here, both out of convenience, and in recognition of at least three identifiable settings in PHC activities occur, which seem to be subject to different types of influences. The principal objection that is made to previous research on this topic is that studies have either concentrated on certain stages only, generalizing to the entire PHC process, or they have remained at the level of the health or PHC "system" without examining relationships within the process. (1) The synthesis that is proposed is, if viable, nonetheless perhaps ambitious; and even still, the boundaries of the present work do not extend beyond reaching a starting-point for a broader, 'second-phase' study--of how political and administrative variables relate to economic, cultural, health status, and other "background variables" in the implementation of PHC policy.

At the outset, several features of this research model should be noted which bear closely on its application. First, it is complex. There are unlikely to be any single, overriding determinants of PHC outputs that can be independently isolated. Because of the many interrelationships among the elements of PHC, as has been seen, we should not expect the emergence of any factors that are both necessary and sufficient for PHC success. Rather, as in all public policy, a variety of factors work together to yield outcomes, although some of these will be more critical than others (as appears to be the case with financial

(1) Many of the case studies that were reviewed fall into the first of these categories, while the opposite extreme is represented by the "system" focus of authors such as Elling (1980a), DeMiguel (1975), and Terris (1978). It must be emphasized that each of these approaches is useful for many purposes, including the suggestion of wider applications. In drawing implications from such analyses, however, it is necessary that the explanatory range of each be clearly specified. The typical failure to do this, in these and many other studies, places major limits on their interpretability.

capacity of the state, for example).(2)

Second, explanations will be relatively specific to particular countries or types of settings. Just as the interpretation of PHC varies according to its context, the salient dynamics of PHC will differ as well. This model is 'universal' only in the sense that it attempts to encompass much of the range of patterns and effects that are likely to be important in most countries. To continue with the example, financial capacity may be most critical during policy formulation in one setting, and during program administration in another. Thus, comparative may involve similar dynamics occurring at different units of analysis. Although, on the one hand, for analysis to proceed it must focus on specific levels--e.g., the nation, the agency, the community--research cannot be restricted to a particular level if it is to capture a wide range of operating influences.(3) A variety of levels must be addressed if the full dimensions of a policy are to be understood.(4) However, there remains a logical requirement that changes in level of analysis must be specified in the research design.(5) A lack of financial resources will, for example, affect the state, the health ministry, and the community in different, if related, ways; the policy implications as well as the appropriate research methods will vary according to the level that is involved.

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- (2) While often unwieldy, much of this complexity is required so that analysis is not biased as a result of omitted variables, which may affect the observed relative influence of included factors (see the discussion by Verner, 1979: 183). After preliminary analysis some less influential variables may usually be dropped, but this can only be done with empirical justification.
- (3) Ashford (1977: 93) observes that most policy studies tend to focus on a single level of analysis, usually the state; that "most do not account for the changing meanings and context of policy over time, or their institutional effects." He continues, "If we do not conceive of policy as a specific result having some kind of standardized meaning (most often economic), then we can begin to see its institutional effects across units and, in turn, how states may vary in the way they give policies importance and organize their implementation and execution."
- (4) On this this point, Danziger (1975) compares two alternative approaches to the study of financial resource allocation by governments, the "demographic" and the "organizational process" modes of explanation. In describing the different variables used, research styles followed, and conclusions

Finally, the model may serve a variety of purposes, although it is primarily oriented toward an understanding of policy variables and influences. Comparative research has different functions; Berting (1979), for example, identifies five possible goals: (1) to develop theory; (2) to explain specific phenomena of interest; (3) to describe phenomena; (4) to select from a larger number of variables those that may be affected by policy; and (5) to evaluate processes of change. To some extent all of these goals are present in any study, yet distinctions may, and should, be made in terms of the relative emphasis among the different functions. It may be judged that theory and general understanding about development processes, including PHC, are not yet so well refined that further contributions are not valuable, but we feel that any advances must rest on a base of solid empirical work. As described earlier, the principal objective for this project is to identify points at which specific policy actions may be taken to improve the effectiveness of PHC efforts.

2. The Development of Indicators

The first step towards empirical applications of this general model is to specify indicators for the variables to be studied. This is not necessarily straightforward, since many concepts of interest cannot be readily operationalized, while other observable factors attractive to the researcher are not directly related to concepts of interest. As a result of this situation, particularly in the case of research in developing countries, it is almost inevitable that studies finally represent only better or worse approximations to their original designs. The research suggested here will not be an exception. Variables have been proposed for many hypotheses, and in other cases the appropriate indicators are implicit in hypotheses. Much further work needs to be done, however, in defining precise measures that can be used in comparative research on PHC. As a guide, three minimum requirements should be noted for any indicators that are selected.

reached in the two approaches, he points to their essential complementarity.

- (5) Scheuch (1966) and others have discussed the tendency of researchers to move from one unit of analysis to another, as if variables meant the same thing at each level (the "group fallacy"). This is found, for example, in the common practice of equating 'policies', 'programs', and 'projects' in development research. It is unfortunately difficult to avoid much of the confusion that results from this practice where the levels are clearly interrelated, but it is at least possible to reduce inferential errors by specifying contexts as well as possible.

First, and most basically, measures must be meaningful, reflecting as closely their underlying concepts. Validity is not a problem in many cases, such as in the assessment of resources, where variables (e.g., budget size or manpower) can be directly identified. In other cases, however, indirect measures must be used, and these are usually not ideal; this is, for example, the major source of objections to the use of "political commitment" as an explanatory variable. Even in the first instance, if the concept sought is actually "quality of resources," a variety of indirect measures must be employed. Proxy indicators are often selected which capture some aspect of the original concept, but "numbers for their own sake" can be highly misleading.(6) Interpretation of the content of different variables is, finally, an empirical matter, which in many studies is the subject of preliminary investigation. Further problems arise in comparative studies, where cross-cultural differences in the meaning of concepts (such as ideology) and intercountry differences in technical areas such as the length of medical training, may seriously bias research findings.(7) Issues of interpretation and standardization clearly must be resolved before analysis can proceed far.

A second requirement, that indicators be measurable, is closely related to the first. Observation must be possible, and variation must be detectable, if even a meaningful variable is to be useful. In particular, where observation must be indirect, variables are often 'fuzzy', introducing uncertainty into an analysis. The range of possible responses must be set out, and appropriate scaling developed. To some degree, quantitative variables are inherently more 'measurable' and less subject to observer-induced biases than are qualitative ones; this is likely to account for the greater progress that has been made in quantitative study of development programs--in economic as opposed to political analysis, for example. However, it is often the case that concepts of interest are inescapably qualitative--that of "participation," for example--and virtually all policy studies employ a combination of the two types. Despite a continuing tendency for the analysis of qualitative variables to be descriptive and somewhat nonrigorous, considerable work has been done to improve the ability to measure and manipulate such indicators.(8)

(6) Clinton (1979: 119), for example, cites the common use of the number of health personnel or facilities as a proxy for the amount of services available, and use of the number of health services available (however measured) as equivalent to measures of resource accessibility, as potentially misleading.

(7) Problems of establishing the 'equivalence' of variables across research settings has been discussed at length in the comparative literature; see, for example, Przeworski and Teune (1970: 117).

Criticism has often been justly leveled against the "over-quantification" of qualitative factors; yet it seems clear that greater rather than less investigation in this direction is warranted by the state of the art.

Finally, indicators must be selected with regard to data availability. It is almost axiomatic that the collection of reliable data poses formidable problems in many developing countries, where information systems are often not well developed, or are unused. Especially with aggregate data, a number of difficulties may arise concerning the accuracy and comparability of information. These issues are discussed at greater length in the appendix; at this point it is only observed that an assessment must be made as to the availability in all countries under study, prior to the selection of variables to be examined.

These requirements, while elementary, have represented significant stumbling-blocks in cross-national research on health systems and PHC. For example, in their early article on comparative political research on health care, Litman and Robins (1971) presented a list of potential variables. Many of these were highly general, however, making them difficult to operationalize, and others imposed unrealistic requirements for data collection; in all, there appear to have been no studies conducted which have systematically analyzed more than a few of these measures. One such partial study is Haignere's comparative analysis of health system performance (1980), which did incorporate several political variables. Preliminary reports of the JCHP study (WHO, 1979c) outlined a set of quantitative indicators about PHC, particularly concerning national resources, which would have been extremely useful. Yet it was evidently not possible to collect comparable data from the countries studied, and only scattered descriptive information on these variables was included in the final report. Studies of health planning may fare somewhat better in terms of the three requirements, because of the delimited range of analysis and the availability of written information. Caldwell and Dunlop (1979), were able to develop a broad tabular analysis of both quantitative and qualitative variables in their

- (8) Quantitative methods have of course been applied to qualitative variables in the social sciences for many years. A number of methodological problems have been addressed, if not fully resolved (e.g., work on observer-induced biases by Friedrich (1966), and more recent authors) in the comparative literature, although many suggested approaches have not been easily applied to research in developing countries. Yet increasing attention has come to be paid to the role of qualitative measures in policy studies, and to the need for their integration with quantitative analysis (Reichardt and Cook, 1979). General issues in this area are explored in the volume edited by Cook and Reichardt (1979).

cross-national study.

The search for meaningful and measurable indicators for which data are available must be expanded, in order to empirically test relationships in the model that is proposed here. We can build on the experience of previous work, but much more refinement of measures remains necessary.

B. Strategies for Comparative Research

There are a wide range of approaches to cross-national policy analysis, which represent potential options for the examination of PHC. However, although methodological issues in comparative research have received a significant amount of attention, there is relatively little consensus over the appropriateness of different study designs for particular research objectives. This section discusses the state of the art in light of several critical methodological concerns, and describes the two principal design alternatives for comparative research on PHC.

1. Comparative Policy Analysis

Despite well over two decades of work in this area, surveys of comparative policy analysis generally reveal little coherence or consistency. (9) Particularly in regard to studies of the developing world, the field remains oriented toward single case studies rather than to actual comparisons or longitudinal studies, limiting its relevance to the present project. (10)

(9) Comparative research in the social sciences emerged as a specific discipline in the late 1960's, principally through work centered at Yale University and the Social Science Research Council (e.g., Merritt and Rokkan, 1966; Rokkan, 1969.) At about the same time, important works on comparative methodology were published by Holt and Turner (1970) and Przeworski and Teune (1970). During the 1970's a large number of comparative studies appeared, predominantly focusing on individual countries (see references in Cook et al., 1975; and Rose, 1975).

(10) Many "comparative" studies of developing countries indeed provide valuable background for more detailed investigation, through the suggestion of hypotheses and the reporting of data on particular countries. A useful selection of policy studies in a broad range of policy areas is found in Grindle (1980), for example. Grindle does not take into consideration many of the limitations on generalizing across policy sectors, however, and as a result the implications of this work are highly ambiguous. Of greater relevance are the se-

This assessment holds as well in regard to the comparative study of health systems. Since the early 1970's there has been a growing international literature on health care, and an interest in possible lessons from comparative research. In the economic, political, and administrative areas alike, however, the bulk of this work has focused on the experience of developed countries. This is evident, for example, in the surveys of comparative health care research found in Wienerman (1971), DeMiguel (1975), Anderson (1976), and recent books by Elling (1980a,b,c). More importantly, although attention has been given in these works and others to issues of comparative methodology, most of the "cross-national" research has consisted of case studies, particularly that concerning developing countries. (11)

Case studies are clearly a useful element of comparative research, for a number of reasons. They provide essential knowledge about the health systems of particular countries, which can be used in the generation of theories and hypotheses. As another step in the interaction of theory and research, cases may also be used to test theory, that is, to confirm or disconfirm hypotheses and general principles about health systems. (12) It has been argued that because data and processes under study are fundamentally context-specific, there must be extensive knowledge about each country and health system before even the units of analysis can be precisely defined (Mokrzycki, 1979). In addition, detailed case studies make possible the identification of specific

ries of edited collections in the fields of population (e.g., McCoy, 1974; Godwin, 1975; Montgomery et al., 1979) and nutrition (e.g., Winikoff, 1978; Austin, 1981). However, although most of these volumes include discussion of comparative research, little application of these methods is found. The state of the art has been well summarized by Feldman (1978: 289-90):

"Comparative public policy is almost exclusively in the domain of American, European, and Canadian analysis... Journals such as Comparative Politics rarely publish articles that actually compare. Rather, case studies derived from various countries propose models others may, but rarely do, choose to adopt. Thus, comparative politics has no burgeoning literature of explicit comparison, and the tradition of lone cases proposed for subsequent comparison is carried over into public policy by works...straddling the traditions of behavioralism, the developing world, and policy analysis."

- (11) The surveys cited above all contain useful discussion of research problems, and set out typologies for classifying comparative studies. Several of the papers in Pflanz and Schach (1976) specifically address methodological concerns as well (e.g., Kohn, 1976). Elling's writings have main-

causal patterns through longitudinal analysis. (13)

The type of model that is employed in all generalizable research on interventions is that of the "quasi-experiment." Through time-series analysis, empirical testing of policy impacts may be carried out with methods approximating those of classical experimental research. By strict definition, "quasi-experiments" refer to the controlled analysis of a single setting; that usage is reserved here for such studies. These tests have the following features: (1) a relatively isolatable target population, (2) a relatively isolatable and randomly applied policy action, (3) a describable and relatively unchanging context, for statistical control, and (4) specified predictions about effects (Teune, 1977: 48). This forms the general model for research/pilot projects that have been used, for example, to examine proposed PHC interventions in many countries. Due to nearly universal problems of design and data collection, most of these projects do not meet the formal standards that are set for them. However, as described in Section 2.C, many of these projects have provided important information about the administration and impacts of PHC. (14)

The goals of comparative research extend beyond the generation of knowledge from individual case studies, however, to include the development of understanding about patterns of policy and program effectiveness across groups of countries. Two

tained a continuing emphasis on cross-national studies; much of this has been incorporated into his 1980(a) volume. Elling (1980c) contains a comprehensive and up-to-date bibliography of "comparative" research in health care; the citations are chiefly surveys and case studies.

- (12) Roemer's work over the past two decades (much of which is collected in his 1976 volume) is a prominent example of this sort of incremental development of knowledge about health systems through descriptive case studies.
- (13) Formal methods of "path analysis" have been used in country case studies in other fields (e.g., Peters, 1976), but the rigid assumptions of this approach make it generally inapplicable to research on developing country health systems at the present time.
- (14) "Quasi-experiments," as a modification of the logic of experimental design, were suggested by Campbell and Stanley in their early work (1963). Operational implications of this approach were later described by Campbell (1969). To date, analytical methods have been developed in this area to a relatively high degree of refinement (e.g., Caporaso and Roos, 1973; Cook and Campbell, 1979). When considering

general purposes may be distinguished in this work: (1) that of expanding the range of generalizations that can be made about policy and intervention processes; and (2) that of focusing generalizations on the situation in delimited settings. Thus, at one extreme, comparative research may attempt to determine general patterns among a large sample of countries, while at the other it may seek to identify specific processes that are operative within a smaller number of cases. Corresponding to these extremes are two principal approaches to research: aggregate or statistical analysis, and comparative analysis of case studies. Because these objectives are not mutually exclusive, but are seen to fall along a continuum, the design of comparative studies is in practice a matter of selecting a suitable combined strategy in light of policy needs, research capabilities, and data availability. However, since the two approaches have different data requirements, involve different analytic methods, and produce different types of results, they should be treated separately. They may be described briefly in turn.

2. Aggregate Analysis

In aggregate analysis, quantitative estimates are made of the contribution of specific factors to the overall pattern of policy, within a framework of information from a relatively large number of countries. By maximizing the number of cases and statistically manipulating the data, explicit hypotheses may be tested while control is exerted by means of partial correlations (Lijphart, 1975: 163). The choice among different methods, including tabular presentation, regression, and factor analysis, is based on the objectives of research, and determines the form that the results will take. Of these, regression analysis is the most common.

Aggregate analysis is used widely in cross-national research, principally for the examination of expenditures and other quantitative data. Qualitative factors, scaled or separated into

their application in developing countries, however, several major obstacles must be noted: it is usually not possible to isolate the population and "treatment" from "environmental" influences; to control for the effects of maturation and long-term trends; or to ensure that the treatment occurs in a random way. And as Teune (p. 48) observes, "applying the logic of experimental design to general institutions, such as governments, with multiple population targets, multiple policy goals, and a complex context is even more problematical." As a result, PHC pilot projects in developing countries are not likely to meet strict research criteria, but they nonetheless represent a significant resource in the development of PHC (e.g., Gwatkin et al., 1980).

appropriate categories, are characteristically included among independent or causal variables, thus permitting the study of environmental, political, and administrative influences. This approach has been used, for example, in studies of government expenditure patterns and of the distribution of foreign assistance among types of political systems and country characteristics. (15)

In analysis of public health sectors in developing countries, most aggregate studies similarly center around economic variables. (16) Several recent studies have used aggregate methods to analyze policy outcome variables; Verner (1979), for example, examined the effects of political and economic conditions on education policy outcomes in a sample of 102 countries. In one relatively novel application, Sobhan (1976) used factor analysis to assess the reasons for success in 36 rural development projects in Latin America and Africa. (17) Likewise, Caldwell and Dunlop's examination of health planning in 27 developing countries (1979) is one of the few applications of quantitative techniques in the political and administrative analysis of health systems.

The usefulness of the aggregate approach in comparative analysis is limited, however, by several inherent problems having to do with both the design of research models and the interpretation of the data that are used. A major difficulty is that standard regression techniques (ordinary least squares) allow relationships under study to be represented only by a single, relatively simple form. This form is usually linear, yet true effects are

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- (15) Liske et al. (1975) contains a broad selection of aggregate comparative studies. On government expenditures in various policy areas, see Adelman and Morris (1973) and Hayes (1975), for example. On the distribution of aid, see Loehr (1976); Isenman (1975). Of particular interest in these studies are the different methods used for combining qualitative and quantitative variables (e.g., type of regime with level of output) in the models that are tested.
- (16) Abel-Smith (1967) established a pattern for studies of health expenditures that has been generally followed by other analysts. In one of the most comprehensive of these studies, Leichter (1979) used data from approximately 125 countries to examine the relationship of national political and economic conditions to patterns of health spending.
- (17) Sobhan's principal findings were that three distinct factors (group participation, income and financial resource constraints, and contextual surroundings) accounted for much of the observed variation in project effectiveness. These results basically confirmed the results of earlier descriptive studies.

likely to be far more complex. There is also often reason to expect different patterns of effects, (say, in the relation of regime type to health expenditures), in different settings, and such variation is difficult to capture. The exact specification of interaction terms cannot be easily determined, while their wholesale inclusion reduces the statistical power of analysis. Statistical biases may also be caused by interrelatedness, or multicollinearity, among the independent variables. In addition, outcomes must usually be expressed with a single variable or index, which may not be a valid representation of a complex phenomenon. (18) It is often the case that the true relationship under study is not strictly causal, but is rather the outcome of an interdependent, "feedback" process. (19)

Alternative statistical methods may be used to avoid some of the problems associated with regression analysis, but they too have weaknesses. Factor analysis, for example, does not impose a complex structural form on relationships among variables, but empirical translation to policy variables and interventions may be difficult, and its practical use is thereby limited. Tabular analysis permits the visual examination of patterns within data, but the interactions among only a small number of variables may be considered at one time. Overall, there is a clear tradeoff between analytic power, on the one hand, and generality and ease of interpretation on the other.

A second type of limitation arises from the level of data that are used in multiple-country aggregate studies. This has been called a "whole-nation bias," in reference to the fact that

(18) Hayes (1975), for example, considered that the true effects of country conditions on government spending were masked by these various factors. In assessing the lack of explanatory power of political variables in their study, Ames and Goff (1975) suggest that, "Even if no cross-nationally equivalent political variables systematically affect spending, many manifestly "political" influences may affect it in particular countries. That is, Latin America may not have a common allocation process; instead, different models may explain different groups of countries or time periods."

(19) That is, the true linkage may in fact be part of a system of relationships, all of whose values are determined simultaneously. In this case, more complex techniques (such as two-stage least squares) must be employed; however, such methods are statistically unwieldy and often difficult to interpret, and are not widely used (Loehr, 1975). Fowler and Lineberry (1975) further discuss problems of reciprocal causation in the relationship between political, social, and economic variables, and they develop alternative, non-causal models for expenditure analysis.

the national system may not be the most appropriate unit of analysis, and it has at least two implications. On the one hand, important patterns will be disguised where aggregate data do not represent the specific features of sub-national areas. (20) At the other extreme, if the same causal patterns are present in different countries, the cases are not statistically independent; adding duplicative cases does not add new information to the analysis, so that findings may gain a spurious significance. Finally, it is usually more difficult to ensure the comparability and accuracy of data that are used in studies conducted across multiple countries.

These considerations, while significant, do not invalidate the use of aggregate studies. Some of the problems are in fact common to all comparative research, although they are probably most critical in aggregate studies. Most importantly in this regard, aggregate analysis can provide a useful first view of relationships which influence PHC effectiveness, without a need for extensive on-site data collection.

3. Comparative Case Analysis

The second principal approach to cross-national research provides a more detailed examination of policy and program processes through systematic comparison of a limited number of country case studies. Background or environmental influences are controlled for implicitly by the selection of countries in the sample, permitting the inspection of variations in PHC patterns and the testing of various sets of hypotheses. The range of settings is substantially more limited in this approach than in aggregate analysis, although its flexibility is much greater. The range of contexts over which generalizations can be made is more narrow, yet the design allows research questions to be tailored to conditions in a particular group of countries, thus facilitating the conduct of detailed studies. The advantages of the comparative case approach for increasing knowledge about policy dynamics in most cases outweigh the costs in generalizability.

(20) (Scheuch, 1966; Alker, 1968). In all situations, the use of summary statistics inevitably masks the actual distribution of characteristics within units being studied, and greater specificity is called for when significant intracountry variations exist. Suggestions have been made to incorporate measures of dispersion in aggregate analysis, but such measures have proven hard to define and to obtain data for (Allardt, 1966). Furthermore, because of the greater homogeneity of measurements concerning larger units of analysis, findings are likely to overstate the strength of relationships if inferences are extended to smaller units of analysis (the "ecological fallacy").

This approach, involving a "manageable" number of cases (usually from two to no more than six or seven), has been adopted in virtually all cross-national studies of health systems. In the comparative case strategy, the research design and country sample are selected jointly; that is, the study design is organized around the settings of interest, while at the same time the sample of cases is chosen on the basis of research goals. There are a variety of reasons for which a particular set of countries may be selected a priori, commonly relating to the program involvement or institutional commitments of sponsoring organizations, or to the geographic focus of research programs. Of greatest interest here, however, is the situation where country cases are selected for their suitability to specific research questions, although it is recognized that, in practice, these choices are not made in isolation.

At least two distinct types of goals may be identified along a continuum of objectives for comparative research. One possible objective is to obtain a wide variation in the characteristics of sample cases, in order to demonstrate the generality of relationships across diverse settings. Such applications are typically exploratory, seeking to determine how differences in country conditions affect the features and outcomes of policies and programs. This approach, which essentially represents a descriptive version of aggregate analysis, is referred to as the contrasting case strategy. The opposite extreme of research objectives involves the testing of specific hypotheses in a sample of cases which are matched in as many respects as possible. Here, the attempt is made to isolate those factors responsible for differences in outcome variables through strict control over possible extraneous determinants. This design, which more closely approximates the standards of experimental research, is referred to as the similar case strategy. Comparative studies of social processes (including health systems and PHC) can be classified into one or the other of these two categories, on the basis of their analytical methods and the form of results. The distinction is only one of emphasis, however, since research is likely to combine features of the "ideal" models.

The contrasting case strategy, also known as the "most different systems" design, is an efficient means of testing patterns that are hypothesized to be universal. It has been used in a number of broad surveys of health care systems, to identify relatively simple relationships which seem to hold irrespective of country conditions. The goal is to capture maximal breadth in the system-level independent variables--i.e., political, economic, social, and organizational factors, and health conditions. To achieve variation in multiple characteristics usually requires at least a moderately large sample of countries, and as a consequence, field research for these studies may be a costly undertaking. They have, nonetheless, been effectively used to explore

many different aspects of health care, using both qualitative and quantitative techniques.

Glaser (1970), for example, examined cultural, social, and economic effects on hospital systems in 16 European and Middle Eastern countries, and through a descriptive analysis derived a broad selection of propositions about hospital performance. Under the auspices of WHO, Kohn and White (1976) carried out a major survey of health care organization in a sample of predominantly Western countries. Elling has for some years promoted the development of well-specified "contrasting case studies" of health care systems, to determine patterns underlying variation in country health conditions, and a number of studies have been conducted using this model. (21) The findings of contrasting-case research are frequently presented somewhat unsystematically, in the form of general "lessons" from the experience of other countries. (22) The JCHP study of PHC may also be considered in the "contrasting" category. The seven cases included in the study were selected as a "representative" sample of countries which had made progress with PHC, and the analysis was designed to draw generalizations about policymaking and implementation of PHC worldwide. (23)

The principal drawback of the comparative case strategy is that, while generalizations may be drawn about the sample of countries studied, conclusions are necessarily subject to a

- (21) This strategy, which shares features of the similar-cases design as well, seeks to identify countries which contrast in "health achievement," but which are similar in their level of resources and other factors. Using chiefly descriptive methods, Elling has carried out a variety of two-country comparisons which examine the causes of differences in country health status; much of this work is collected in Elling (1980). Also falling in this "middle-range" of research is Haignere's extensive study of macro-level determinants of health status differences between the U.S., the Soviet Union, Spain, and Chile (1980).
- (22) In a review of the literature through the mid-1970's, for example, Denny (1974) assessed the use of indigenous health workers in a number of developing countries. Similarly, Marmor and Bridges (1980) conducted a review of health planning in 18 widely scattered countries, orienting their report to applications in the U.S.
- (23) Regarding sample selection, the study report states that "the most important requirements were that the countries should have made some progress with the PHC approach; that examples should come from different regions; that countries should represent different degrees of socio-economic devel-

variety of qualifications. The number of cases is in the first place almost always too small, relative to the number of divergent, potentially explanatory factors, to permit the isolation of specific effects; that is, degrees of freedom are too few. Beyond this, problems may occur in separating out those effects due to inter-country, as opposed to within-country, variations (Kobben, 1968; Meckstroth, 1975). In Haignere's study, for example, the degrees-of-freedom problem proved to be critical: even assuming that other conditions in her four countries were similar, it was not possible to draw meaningful conclusions about differences along the four selected dimensions (i.e., GNP, ideology, resource availability, and health status).

Even where certain relationships may be judged to be universal, the possibility cannot be excluded that the cases were not sufficiently "different" to cover all relevant contexts or to find all potential counterexamples. Furthermore, while hypotheses can be straightforwardly disconfirmed by negative examples, it is difficult to assess the specific reasons for which expected patterns do hold. As a result, although the contrasting case strategy was favored as a mode of comparative research in the early 1970's (and it continues to be useful as an exploratory technique), it is seen to be severely limited in its capacity to permit conclusive generalizations about relationships of policy interest.

A different and somewhat opposite logic is applied in the similar case strategy (or "most similar systems design"). Here, the range of settings over which effects are examined is deliberately selected so as to minimize the variation in country conditions. Through the achievement of control on the basis of this comparability, and the associated focus on key variables, the standards of experimental design and statistical principles of aggregate analysis are each approximated. The generalizations that are yielded by this strategy are clearly partial, rather than universal, in scope and validity, and are subject to the conditions represented by the controlled-for characteristics. For most policy applications, suitably qualified partial conclusions are likely to be adequate, although the inability to determine relative impacts of common structural factors on policy out-

opment; and that a variety of socio-political systems should be included" (WHO, 1981: 4). The study was intended to include "an analysis of the factors which determined the initial political decision, a description of the steps which followed in initiating implementation, and the ways the policy was implemented in action" (p. 2). It should be noted that, although quantitative data (including output indicators) were collected in the study, the report itself is almost entirely descriptive.

comes remains a definite limitation of this design. (24)

The similar-cases strategy thus shares some of the specificity and depth of single-country studies, as well as the inter-country applicability of contrasting-system analysis. It has come into wide use by researchers only recently, and relatively few studies of health systems have been conducted which meet the criteria of this approach. The largest number of studies in this category are those of health care in developed countries, on such topics as planning, financing, and organization, which are more easily carried out because of the availability of data in these areas. (25) A much smaller amount of work has been carried out on developing-country health systems. Of some relevance are the studies of community-based organization in Asia, which are analyzed in Uphoff and Esman (1974). On a smaller scale are studies of the "exportability" of the Chinese PHC model to other countries (e.g., Rifkin, 1973; Ronaghy and Solter, 1974), and more detailed comparisons such as that by Ugalde (1979) of health care decisionmaking in Colombia and Iran. Bossert's study of PHC in Central America (1981) report, also falls in this category.

The relative absence of work in this area is in large part due to several methodological and practical limitations. First, the degrees-of-freedom discussed above is if anything more serious for similar-case analysis. As noted by Przeworski and Teune (1970: 34), "although the number of differences among similar

(24) (Ashford, 1977a). Discussing policy requirements, Teune (1977: 154) observes that "the primary purpose of comparative policy research, however, is not to establish the universality of relationships. Rather it is to enhance the credibility of specific predictions about specific cases... (I)t does not matter if the consequences are, strictly speaking, due to the policy or to the interaction of the policy with wealth or the political institutions of the country. The question is whether this context, this country, this policy will have specific effects. Further, rather than making disconfirmation of relationships easy and then searching for likely system level variables that would explain the differences as in a most different systems design, what is important is whether a relationship found to hold in one country will be true in another. In this sense comparative policy research takes on the purpose of applied research, to get useful rather than general knowledge in the short run."

(25) This approach has been advocated for improving understanding of options for the U.S. health system; see, for example, the focused study of health planning by Marmor et al. (1977), organizational studies collected in Altenstetter (1976b), and Leichter's four-country analysis (1979).

countries is limited, it will almost invariably be sufficiently large to 'overdetermine' the dependent phenomenon," thus restricting the ability to single out explanatory variables. (26) Second, it may be difficult to obtain a large degree of variation in factors of research interest, since countries which are similar in terms of background conditions are often similar in "operating" characteristics as well. Finally, closely comparable cases may be so difficult to find that the focus of research comes to be greatly narrowed by the availability of particular countries for study. (27) A number of other issues--concerning, for example, the level of analysis, the form of conclusions, and relevant dimensions for study--require more detailed examination, based on specific research needs.

The alternative approaches--detailed case studies, and broad surveys of diverse countries--are each worthwhile, and they have provided much basic knowledge about the functioning of health systems and the performance of PHC models. Yet it is only through the synthesis of case study findings and the focusing of exploratory analysis that specific, policy-relevant generalizations about PHC will be possible. A broad program of comparative research would usefully integrate these three components. (28) The greatest emphasis in such a strategy should be placed on carefully planned, similar-case analysis, although the details would have to be worked out in light of particular research priorities. Selection of countries for study would be a major concern; it is necessary to identify a group, or cluster, which will allow the testing of hypotheses, which have the desired background characteristics, and are reasonably convenient for research. Details of such a possible comparative strategy are presented in Chapter VI.

C. Data Collection

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- (26) Strategies have been suggested for increasing explanatory power in this situation, including focus on subnational cases (Lijphart, 1975: 172) and the use of multiple observers with different perspectives (Campbell, 1975). Unfortunately, neither of these approaches is immediately applicable to research on PHC.
- (27) These points are elaborated upon by Lijphart (1975).
- (28) Leichter, for example, included aggregate and similar-case designs in his 1979 study; Elling (1980a) used a variety of aggregate approaches as a basis for identifying contrasting cases for analysis.

A critical yet characteristically underappreciated requirement of any cross-national analysis is that adequate and comparable data be available for study. Each of the variables and hypotheses outlined in this report imposes needs for information, which are cumulatively quite substantial. The problems faced in the preparation of individual case studies are even more complex when multiple-country research is considered.

At the outset, we may identify at least three aspects of data availability that must be addressed:

1. The data must clearly be accessible: it should be reasonably convenient to obtain, and be in a form that can be readily translated into meaningful indicators.
2. Data must be complete: there will be differences in the ease of collecting data in different study areas, but results will be biased if values are not obtained for all variables, especially where the number of cases is small.
3. The data must be reliable: measurement errors and other inaccuracies are likely to appear in any data set, and estimates must be made of the implications of resulting problems for the validity of analysis.
4. Finally, the data must be comparable: the validity of cross-national research ultimately rests on the degree to which information from different settings may be meaningfully compared, and intercountry differences with respect to measurement categories and reference periods, for example, must be taken into account for purposes of standardization.

Each of these concerns may present formidable obstacles to the success of an otherwise well-designed study.⁽²⁹⁾ A variety of strategies may be adopted to improve data collection, yet rarely is some level of compromise avoidable. This section outlines data needs for the types of variables described in the preceding chapters, and assesses the availability of data from different sources in light of these requirements. Indicators for many variables have been suggested in the discussion of hypotheses; a more thorough treatment will necessitate a more complete specification of research design than has been attempted in this report. Likewise, it was not possible to provide a detailed catalogue of possible data sources, since these are in many cases country-specific. In this brief presentation we introduce relevant issues, and point to areas in which data constraints are likely to be most critical.

(29) The greatest difficulty experienced in the JCHP study of PHC was the fundamental one of obtaining data for the seven country cases.

The variables identified in the preceding literature review may be grouped into the following four categories, as outlined in Section 1.B:

1. Background Variables, which describe the national socioeconomic context of PHC and serve as "control" factors in comparative study; these include economic, cultural, and socio-demographic factors, and health conditions.
2. Political Variables, which affect the formulation of PHC policy; these include the national ideology and development strategy, political organization, national capacity, the health care system, the planning process, and foreign actors.
3. Administrative Variables, relating to PHC program administration within the health agency; these include administrative commitment and capacity, recruitment and training procedures, pilot activities, and administrative structure.
4. Operational Variables, which describe the setting and process of delivering PHC services; these measures include access to the target population, the local health system, community support, the organization of services, and logistical support.

These four categories encompass a wide range of data needs and applications. Background factors are used to set the framework for comparative study, and so are essentially independent variables, while the other three categories include both independent variables and output indicators for hypothesized relationships about PHC operations and effectiveness. Data for these different types of variables may be obtained from a variety of sources. We identify eight major types of data sources, as shown in Table 1:

1. Aggregate Statistics of broad country characteristics;
2. Country Descriptions providing more detailed national background;
3. Planning Documents from national agencies, particularly the health ministry, and from international agencies;
4. Budget Materials concerning expenditures for health care and PHC;
5. Program Reports regularly collected on PHC activities;
6. Evaluation Studies and other formal analyses of PHC programs;

Table 1
Data Sources for PHC Variables

VARIABLES SOURCES	BACK- GROUND	POLICY FORMULA- TION	PROGRAM ADMINIS- TRATION	SERVICE DELIVERY
Aggregate Statistics	X	X		
Descriptive Materials	X	X		
Planning Documents	X	X	X	X
Budget Materials		X	X	X
Program Reports			X	X
Evaluation Studies			X	X
Secondary Analysis	X	X	X	X
Interview Materials		X	X	X

7. Secondary Analysis based on academic research, consultant missions, and other primary sources; and
8. Interviews and Surveys and other primary materials, chiefly collected on-site.

As shown in this table, background data are expected to be derived from aggregate statistics, descriptive materials, health plans, and secondary studies. Different political variables will be obtained from all sources, with the probable exception of project reports and evaluations. Administrative and operational data will be generated from all of the sources except aggregate and country descriptive materials. Various subsets of these sources are expected to prove sufficient in regard to different countries and research designs.

Both the quality of data and the ease of obtaining it will inevitably vary widely. The following discussion offers a preliminary assessment of the eight types of sources, in terms of their expected accessibility, completeness, reliability, and comparability.

Aggregate statistics have already been considered to some extent in earlier discussion. Published collections of cross-national data for different variables are available in a number of published abstracts and compendia. These cover, for example, demographic and economic characteristics of countries (e.g., from documents of the United Nations and other international agencies); political factors (e.g., Taylor and Hudson, 1972); and health conditions (WHO, 1980b). This information is inherently summary in nature, and it covers most categories of interest for at least the purpose of preliminary surveys and aggregate analysis. (30) Because aggregate data are usually obtained from government sources, they will generally be reasonably reliable. However, several problems (which extend to other data sources as well) have been observed. First, data are often severely limited for some countries, particularly those under socialist regimes

(30) Haignere (1980) presents a useful bibliography of statistical abstracts in different areas. It should be noted that cross-national data on political variables remains relatively weak. Despite the availability of the references cited (which are now ten years old), Taylor (1980a: 6) finds that "international compendia of official statistics have generally avoided political structures, processes, and events." Suggestions have been made for improving political indicators, such as through expanding their scope (e.g., Taylor et al., 1980), and including different levels of government, from the "bottom-up" (e.g., Gurr, 1980). For the research proposed here, however it is probably necessary to rely on country-specific sources for political data.

such as Cuba, the People's Republic of China, and Vietnam (Leichter, 1979: 71). Information for other Third World countries, if available, is frequently uncertain; Uphoff and Esman (1974: 10-11), for example, found inconsistencies among figures from the World Bank, the U.N., and the U.S. Government on a number of aggregate measures for Asian countries. In addition, especially where data are collected internally, reliability may be limited. (31) In all, aggregate statistical data will be available for most countries and years, but quality must be examined in specific cases.

Country descriptions cover a wide range of government publications, international agency documents, and academic studies which provide information on political, economic, social, and health conditions in individual countries. The accessibility and completeness of these materials will depend on the cases being studied, although in most instances a sufficient number of sources can be found. The use of multiple sources may also be expected to yield reliable data, but for many items--e.g., disease prevalence or income levels--precise figures may not be obtainable. Attention must also be given to questions of comparability. USAID document collections might be a principal source of general country materials.

Planning documents will be the chief source of descriptive and quantitative information on national strategies and objectives for PHC, and on resource availability and program organization. Health sector plans are prepared on at least a five-year basis as an agenda for resource allocation in nearly all countries, and they are usually updated, more or less thoroughly. Copies of health plans for selected countries are available through WHO and its regional offices, in most cases through AID, and at the country level. Other international organizations, including the World Bank, regional banks such as IDB, and the U.N., may have health planning documents as well, although their collections are generally restricted to national development plans. Beyond the usual problems of accuracy, the chief objection to reliance on planning data is the common lack of information on the extent to which the plans are actually followed. Plan updates, and more importantly, the presence of detailed "tactical" or operational plans, may help to alleviate this uncertainty and to

(31) There may, for example, be various unsystematic errors or "peculiarities" in data collection in different countries, along with possible falsification or deception on certain political, social, and economic indicators (Leichter, 1979: 71-72). The cumulation of errors makes it also probable that accuracy will be most compromised at higher levels of aggregation (Scheuch, 1970). Various schemes for standardizing aggregate measures have been proposed (e.g., McGranahan, 1966), but these are difficult to put in place.

enhance accuracy. Comparability is likely to be somewhat weak, because despite the promulgation of consistent formats for health plans, differences in approach are seen among country documents. Where international agencies are actively involved in national health activities, however, there tends to be adherence to basic standards of completeness and quality. This situation may be further improved if WHO is successful in its effort to encourage the development of national strategies for "Health for All" (WHO, 1979b).

Budget materials will be the main resource for information on the scope and pattern of PHC activities. Projected health program budgets are included as a component of written plans, and these provide an initial view of allocations for PHC. Determination of actual expenditures is more problematic, however. The availability and ease of interpreting expenditure data will vary considerably among countries (Bossert, 1981). When accessible, budget information is likely to be complete; however, for several reasons it may not be fully reliable or comparable. Budget categories and accounting systems are notoriously diverse. Certain types of expenditures (such as those made at the local level) often go unreported, for example, and rural health items may be found throughout the health agency budget. Interpretation requires further attention, because of cross-national variation in the "price-cost" of specific goods and services, and difficulties in converting the currency units of different countries into comparable measures. (32) In all cases, the collection and analysis of budget data is expected to require substantial in-country effort.

Project reports will be used to provide detailed information on operations and outputs in all aspects of PHC. This source includes regular progress reporting to the health agency, reports of project operating agencies, and monitoring reports of foreign donors and international agencies. The consensus among most analysts, as has been described earlier, is that reporting and monitoring are frequently not carried out, and even where such information is available it may be of questionable reliability. As a result, it is expected that the collection, interpretation, and verification of project documents will be a major task. Formats will also have to be developed for bringing data into comparability. An initial step here will be to survey the program files of U.S.-based agencies, where possible. (33) As the next step,

(32) (Leichter, 1979: 171). In their survey of cross-national indicators, Taylor et al. (1980: 129) find clear deficiencies in available data on resource allocation, but note that there are currently no major projects to improve its collection or comparability.

(33) These sources include agencies which operate PHC programs,

gaining access to country health agency files will require considerable planning and cooperation.

Evaluation studies are the broad class of official analyses of PHC operations and effectiveness, of 'process' and 'outcomes.' The availability, focus, and quality of evaluations for a given country's health programs will obviously be highly variable; as has been discussed previously, there is in general a lack of useful evaluations for most countries, despite a widespread recognition of their importance. The majority of evaluations are conducted under the auspices of external agencies rather than national governments. Among these are three principal sources for studies: (1) Multilateral and bilateral organizations themselves, including WHO, the World Bank, and USAID; (2) Consulting firms and other private contractors; and (3) University-based researchers. (34) A search was made in the course of this review for evaluation reports on specific PHC activities, and a number of these have been noted. It would have been most useful to locate data used in evaluations which could provide the basis for a broad secondary analysis, and so avoid the need for extensive in-country data gathering. This effort was not successful, however. Even more synthetic evaluation materials proved in many cases difficult to identify and obtain, and a more thorough search will be necessary to obtain a complete collection of studies which are applicable to a given country. (35)

such as private foundations and PVO's; universities and consulting firms that provide technical assistance; and USAID and international organizations.

- (34) In the second category are organizations such as the APHA and AUPHA; private consulting firms, of which perhaps the most relevant are Westinghouse Health Systems, Management Sciences for Health, University Research Corporation/ Family Health Care, Development Alternatives, and Battelle. In the "university-based" category fall research groups and individuals, usually associated with schools of public health, medicine, or development studies. Among the most prominent centers for this type of work are those at the University of Michigan, Johns Hopkins University, the University of North Carolina, Dartmouth College, Harvard University, the University of Hawaii (East-West Center), and Cornell University (Rural Development Committee). Falling somewhat between these two categories are several university-associated consulting groups, including the Research Triangle Institute (University of North Carolina) and the Harvard Institute for International Development.
- (35) A useful though incomplete source of reports on USAID-sponsored evaluations is the Catalogue of Research Literature

Secondary analyses encompass a broad range of studies which do not fall into any of the preceding categories but which describe aspects of PHC policies and programs. These include academic case studies, professional papers (particularly those in the published literature), and miscellaneous surveys and analyses by governments and external organizations. Materials such as these will be useful for several purposes--to fill in gaps of knowledge, to verify information obtained from other sources, and to provide a preliminary synthesis of data, for example. However, their availability and quality cannot be easily predicted, and can only be determined through a country-by-country review.

Finally, interviews are likely to be necessary to obtain a large proportion of the data in all areas of study. Although major population surveys are not foreseen as an element of the research proposed here, interviews at the international, national, regional, and local levels will be required to obtain data for many of the variables that have been described in this report. It is beyond the scope of this report to examine the design of interviews for different types of research issues and settings; we point to the experience of previous studies, as well as other research literature, as useful guides in this area. (36)

In summary, the proposed data sources for comparative research on PHC will require considerable further attention in order to furnish data that are accessible, complete, reliable, and comparable. Deficiencies in coverage or completeness of data may be partially made up for by the use of multiple sources for given countries, but problems are likely to remain. Concerns of the reliability of data and its comparability across research settings present the most substantial problems, especially in regard to in-country sources. Further examination of all of these issues is clearly necessary in the design of specific research projects.

for Development (USAID, 1977), with later supplements. It appears that a more comprehensive listing will be obtainable only through a survey of specific technical and regional offices, in AID as well as in other international agencies.

(36) See, for example, the interview formats used by Clinton and Godwin (1979: 157), and in the JCHP study (WHO, 1981). Discussion of many practical problems in research on health systems is found in Pflanz and Schach (1976), and also within the larger literature on field research in developing countries (e.g., Holt and Turner, 1970).

VI. RECOMMENDATIONS FOR FURTHER RESEARCH

A. Overview

The review of the literature on the politics and administration of primary health care and on research methodology presented above suggests a full agenda of research, only part of which is feasible to attempt at the present time. The choices for research range from, at one extreme, a broad attempt to generate new data from a large number of countries in order to test several hypotheses by aggregate data approaches; to the other extreme, of single case studies examining individual hypotheses in one country or community.

As we have suggested, at this time it is unlikely that data for a complete and complex aggregate analysis can be generated within anticipated research budgets. We also warn against facile use of aggregate analysis based on data which has not been systematically generated, or which has not been preselected for the purpose of testing specific hypotheses. A research design for aggregate data analysis will have to be sufficiently discriminatory of both the dependent and independent variables so that meaningful relationships can be discovered. Too often in the past, significant relationships have been overlooked because the variables failed to capture the specific characteristics to be tested. At the other extreme, testing single hypotheses on individual case studies also runs the risk of missing important relationships. Such studies may find significant relationships that are only applicable in the specific contexts of each case. Without systematic examination of at least several cases, the contextual influences cannot be easily identified, and we often arrive at the misleading conclusion that the observed patterns are universal. If PHC projects are successful because they are centralized in Costa Rica, it does not mean that centralized projects will be successful in India.

We therefore propose a two-fold strategy as an immediate research agenda for the Office of Health. First, loan, grant, and evaluation documents for health projects should be required to include specific data which can be systematically collected for future aggregate analysis of several selected hypotheses. A simple module could be developed for training USAID personnel to characterize regimes, national administrative structures, and community-level features, and to identify government budget categories, so as to generate information that could be used in an initial attempt to test broad relationships surrounding PHC. The

second approach we suggest is to sponsor three or more studies of multiple case comparisons, for the testing of several hypotheses, e.g., concerning PHC implementation. A cluster of three or four relatively similar cases, probably selected from a single region, would be the most effective means to identify specific implementation patterns. These two approaches are outlined in the following section.

B. Aggregate Data Analysis

Although the ideal aggregate data study would involve a large effort, in which a team of researchers obtained and analyzed data from a large number of countries and PHC projects, such a design is beyond the reasonable budget scope for AID research. An alternative approach would be to use existing sources of data, and to examine only those hypotheses which lend themselves to the available information. For example, the hypotheses relating regime characteristics to policy adoption processes might be easily studied without a major effort to generate new data. Unfortunately, in their present form most AID documents such as project papers and evaluation reports are not reliable sources for even the most rudimentary testing of hypotheses.

It appears likely, however, that with little additional effort on the part of AID officials and consultants, relatively specific and systematic data could be collected through normal reporting channels, if appropriate and understandable frameworks were devised for such reporting. Research consultants could work with AID staff in Washington and at several selected missions to develop a simple format, which would take only minimal time to complete, and would require only basic instructions. The objective would be to provide consistent information through project papers and evaluation reports, on such variables as the stability of the regime, budgetary commitment to PHC, the organization and capacity of the health ministry, and the role of foreign donors, etc., which are likely to be central to any study of PHC processes. While the information gathered through such reporting would not be as reliable as that which could be collected by independent research teams, this method would offer an inexpensive and improved set of data, of considerable quality. Hypotheses from each of the areas of policy formulation, program administration, and program operations could be selected for specific attention, although community-level variables in the last category might be difficult to pursue in this way.

The data obtained through these normal channels of reporting would have to be collected at a central point in Washington, perhaps in a separate documentation office as well as in the Office of Health. The information might be reviewed by research consultants every three months, in order to evaluate the effective-

ness of reporting procedures and to assure that minimal standards of comparability are achieved. At the end of eighteen months, a small research project could be sponsored to conduct a specific analysis of several hypotheses, based on the data generated thus far. Continuing, periodic small-scale studies could then be performed as the data base was expanded.

Methods would be established for reporting findings and feeding these outcomes back into decisionmaking processes at both the headquarters and mission levels. These might include reports distributed to all levels, the publication of findings, seminars or workshops, and perhaps the participation of researchers in the review process for AID health projects.

C. Clustered Case Studies

The strategy of examining three or more relatively similar country cases has been successfully used as a means of avoiding the narrow focus of single case studies, without entering into the multitude of problems of data collection and methodology which are associated with aggregate analysis. This approach involves the fielding of a small team of researchers, who would visit a cluster of countries to generate consistent data for an in-depth study of country characteristics and PHC policy processes. As noted above, by selecting countries that are similar in certain respects, the range of contextual variables which might explain differences in PHC outcomes is limited, and research can be focused on specific variables which might be sufficiently malleable to permit the facilitation of particular aspects of PHC. Thus, a country's size, economic conditions, cultural dimensions, and health status may be controlled for, so that analysis can be focused on factors of interest--such as levels of integration, centralization, and participation in PHC programs. These latter variables, we have hypothesized, are likely to have substantial influence on the success of PHC programs, and they are variables over which policymakers have some control. Through examination of several countries in comparative perspective, the usual types of conclusions from case studies, which ignore the potentially conditioning influence of contextual factors, may be avoided. For instance, a single case study may demonstrate that community participation contributes significantly to the effectiveness of a PHC program in a country with a decentralized administrative structure, while under centralized administration such participation may not be required to achieve the same outcome.

The issues which can be best tested tested with this approach are likely to be those in the program administration and operations stages. We tentatively suggest that that the most fruitful hypotheses in these areas are those relating to the centralization and decentralization of project administration, general ad-

ministrative capacity, and the role of community participation. The review of the literature indicates that these issues may in fact be the most crucial in determining successful implementation once a PHC policy is adopted.

Selection of the countries to be studied should be based on the following principles:

1. Their similarity along economic, cultural, and country size dimensions, and perhaps other factors, to control for background conditions;
2. The absence of major barriers to the interviewing of government and international agency personnel, as well as community leaders and citizens; and
3. The availability of collateral data, from such sources as government reports, research institution studies, and donor agency reports.

These principles may imply that clustered studies should be confined to one geographical region, so that meaningful comparisons may be made. It might be possible to select three clusters, one in each of the major regions, in order to test different hypotheses which are appropriate to each region's specific conditions and interests. It would seem prudent to choose, where possible, countries that have PHC projects not funded by AID, in addition to countries which receive AID financing.

This research strategy, and many of the hypotheses, are not necessarily limited to the study of PHC projects alone; the approach outlined here might be expanded to include research on agricultural, education, and nutrition projects as well. As outlined here, however, it offers a number of opportunities for improving our understanding and capabilities in regard to the field of primary health care.

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