Managing Primary Health Care

Implications of the Health Transition

Richard Heaver
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During the past twenty years, the pattern of disease in developing countries has changed faster than at any time in human history. Especially in the prospering countries of Asia and Latin America, death rates have fallen sharply with increased incomes and educational levels, and with the wider availability of primary health care technologies. As people become better off and live longer, a whole new range of chronic diseases, such as lung cancer, heart disease and pulmonary disease, are becoming more important. At the same time, AIDS has emerged as a new scourge, bringing with it the threat of a worldwide epidemic of tuberculosis.

Primary health care systems are faced with the need to adapt to this rapidly changing scene, while still attempting to deal with an unfinished agenda of fighting communicable diseases, high rates of maternal mortality, and micro-nutrient and protein-energy malnutrition. All of these particularly affect the large numbers of poor people, especially those in urban slums and remoter, rural areas, who have been left behind by development—and who must not be neglected as the demands for treatment of chronic disease increase among the politically vocal better off.

This paper argues that primary health care can have a critical role to play both in safeguarding the health of the very poor, and in helping to ensure, through better preventive care, that developing countries hold down the spiralling costs of treating chronic disease. But it also argues that the way primary health programs are currently designed and managed is often a response to yesterday's problems rather than to today's and tomorrow's. It will be essential for policy-makers to think strategically about how to adapt their primary health systems to the new challenges ahead. This paper is a first attempt to apply strategic management thinking to the challenge of the health transition. I hope that it stimulates further work in this area, and encourages policy-makers to think proactively about changing institutions to meet new needs.

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Director, East Asia Country Department
ABSTRACT

The demographic and epidemiological transition which is under way in most developing countries (and which in this paper is referred to as the health transition) is leading to very significant changes in the pattern of disease. Where in the early stages of the transition, a few diseases caused the majority of deaths, now the disease pattern is more varied, requiring at least fifteen different health interventions at the primary level. The characteristics of health program clients have also become more varied, as the transition takes place at different rates in different population groups within countries. Some clients now mainly suffer from the chronic diseases which are becoming more common as populations age; some suffer also from the communicable diseases typical of the early stages of the transition. Several of the problems and diseases which are now important have not traditionally been the target of primary health care (PHC) programs. And most of the health interventions which are now required are harder to manage than, say, the immunization programs which have been PHC’s main success to date. Growing diversity and growing implementation difficulty together present a major new managerial challenge for PHC programs, but one which is not being systematically analyzed and planned for.

One reason the management issues are not being thought through is the absence of an accepted methodology for discussing management approaches in PHC programs. This paper therefore attempts to develop a conceptual framework suited to analyzing an environment of dynamic change. The framework is based on the concepts of ‘strategic management’, in which organizational structures and processes are systematically adapted to changing tasks and environments; and ‘organizational economics’ in which careful analysis is made of the potential managerial costs as well as benefits of organizational change. The paper applies this framework first to the management of primary health care programs provided by governments, and then to the role of the non-government sector in primary care. The paper draws broad conclusions about how the design of PHC programs needs to evolve to meet the changing needs of their clients. If the general approach adopted seems useful, the conceptual framework needs next to be applied to a series of specific country cases to test its validity and refine it, and to adapt the general conclusions to local cultural, administrative and political conditions.
## LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ARI</td>
<td>Acute Respiratory Infection</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disease</td>
</tr>
<tr>
<td>CP</td>
<td>Community Participation</td>
</tr>
<tr>
<td>GOBI</td>
<td>Growth Monitoring, Oral Rehydration, Breast-Feeding, Immunization</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, Education, Communication</td>
</tr>
<tr>
<td>IMR</td>
<td>Infant Mortality Rate</td>
</tr>
<tr>
<td>MIS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Government Organization</td>
</tr>
<tr>
<td>ORT</td>
<td>Oral Rehydration Therapy</td>
</tr>
<tr>
<td>PEM</td>
<td>Protein-Energy Malnutrition</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary Health Care</td>
</tr>
<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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EXECUTIVE SUMMARY

This paper looks at the way in which the pattern of disease is changing in developing countries, and the implications this has for the way in which primary health care (PHC) programs should be designed and managed. In the absence of an accepted methodology for discussing health management issues, it attempts to develop a conceptual framework suited to analyzing an environment of dynamic change. It applies this framework first to the management of primary health care programs provided by governments, and then to the role of the non-government sector in primary care. The paper draws broad conclusions about how the design of PHC programs needs to evolve to meet the changing needs of their clients. If the general approach adopted seems useful, the conceptual framework needs next to be applied to a series of specific country cases to test its validity and refine it, and to adapt the general conclusions to local cultural, administrative and political conditions.

The Changing Health Care Scene

The demographic and epidemiological transition which is under way in most developing countries (and which in this paper is referred to for convenience as the health transition) is leading to very significant changes in the pattern of disease. In the early stages of the transition, the majority of deaths are caused by a handful of diseases, notably neo-natal tetanus, dehydration due to diarrhea, and pneumonia. As development progresses, and primary health care programs reduce the death rates from the immunizable diseases and diarrhea, the pattern of disease is becoming more varied. Once the impact of the traditional killer diseases has been reduced, a further significant fall in death and disease rates requires intervention against a wider range of diseases and causes of death, such as TB, obstetric emergencies, AIDS, protein-energy malnutrition (PEM), and sexually transmitted and gynaecological infections. These have not been a major focus of most PHC programs. And as progress is made in basic health care and people begin to live longer, the chronic diseases which particularly affect older people are also becoming more important. These include lung cancer, heart disease and chronic obstructive pulmonary disease (COPD), the prevention of which has also not been a traditional part of PHC programs.

Not only is the disease pattern changing toward more diversity, so also are the characteristics of the client populations of PHC programs becoming more diverse. This is because the health transition is taking place at different speeds in different regions and population groups within countries. Sub-populations may have different disease characteristics for a variety of reasons: environmental conditions (which favor a particular disease in a particular region); urbanization (which encourages TB and sexually transmitted diseases (STDs)); the uneven development of the health services in different regions; or cultural and behavioral characteristics of particular populations which make them more likely to get specific diseases, or less likely to adopt new health care interventions. 'Lagging' population groups in the health transition are often poorer people, in remoter rural areas or urban slums. And these groups often carry a particularly heavy burden of disease, since, in addition to the traditional communicable diseases, they often also suffer from a high prevalence of chronic disease.

Many of the PHC interventions which are likely to receive more emphasis in future are harder to manage than interventions like immunization which have—no coincidentally—been most successful to date. Where demand for immunization for smallpox, tetanus or polio has been fairly easy to stimulate (because the intervention is a one-shot—or at most a six-shot—deal), many of the new concerns require difficult changes in health behavior over extended periods of time—for example, changes in sexual behavior (HIV infection), smoking behavior (lung cancer and heart disease) or compliance with difficult drug regimes (TB). And on the supply side, whereas immunization, ORT, or vitamin A and iodine
supplements are fairly easy to deliver, some of the interventions which are likely to receive more emphasis in future, like family planning and PEM control, are hard to deliver as well as difficult to adopt.

These increases in the difficulty of the PHC task, and in the diversity of both the PHC task and the PHC clientele, have important implications for how PHC programs should be designed and managed. Yet few researchers and few health policy-makers and planners in developing countries are thinking systematically about what these changes mean, and how to respond to them.

Approaches To Thinking About PHC Management

One reason the management issues are not being thought through is that there is no generally acceptable methodological toolkit for approaching them. This paper adopts two methodological approaches which are useful for analyzing a rapidly changing environment, but which have not been adequately exploited in health planning. The first is the ‘strategic management’ approach, which was developed in applications to western business from the early 1960s onwards, but was only first applied to third world development problems in the early 1980s. This approach emphasizes that there is no one right way to manage, and that the key thing is to ensure an appropriate ‘fit’ between the objectives and tasks of a project or program and the organizational structures and processes for implementation. One case made in this paper is that the fit of the traditional approach to PHC, with its standard packages of priority service interventions, was quite appropriate for the early stages of the health transition when a few key interventions could deal with the majority of disease; but that this standard package approach does not fit the new, diverse tasks and diverse client environment of PHC. Design and management approaches need to be systematically rethought.

The second methodological approach adopted in this paper is applying what may be termed the economics of organizational change. Any significant change in organizational structures or processes has costs as well as benefits. These costs may come in the obvious form of financial costs, for example for staff retraining; or, less obviously, in the form of disruption costs—the loss of efficiency while workers and clients adapt to new ways of doing business; in the form of political costs—when stake-holders who fear losing out from the changes try to undermine them; or in the form of opportunity costs—which are particularly important when managerial talent is scarce and has to be diverted from other tasks to plan and supervise organizational change. This paper argues that these costs are often overlooked or underestimated when design changes are advocated for health care programs; and that more careful thought needs to be given in each case to whether the benefits of some of the proposed design changes outweigh the organizational costs.

Implications For Public Sector PHC Programs

If a small, standard, national package of primary health interventions is no longer adequate to deal with a more complex pattern of disease, governments could respond by trying to retrain PHC workers in the full range of interventions for the 15 or so emerging priority problems and diseases. But the experience has been bad with trying to get poorly educated primary workers to implement more than a small number of interventions with any degree of quality. A better way to go is likely to be to keep the intervention package small in any given geographical area, but to vary the package from area to area, and change it over time, so that for each local population the package always focuses on the four or five most important local health needs. This ‘local package’ approach clearly implies more decentralized management than was needed for the traditional single, national package approach.

Full scale decentralization. Several large, mid-transition countries are in the process of devolving health planning, budgeting and spending authority to provincial or lower levels, in order to
increase program responsiveness to local needs. But with rapid decentralization currently often seen as a panacea for a host of development problems, its costs are often underemphasized. Rapid, large scale decentralization can seriously disrupt the delivery of health services until new systems are developed and settle down; and may spark off significant covert opposition from central planners and managers who stand to lose control or influence. Devolution of control over health services is also not always in the best interests of poor people. Better off groups with more political voice may succeed in getting more resources allocated to curative care and to the chronic disease from which they most suffer. Where local health planning capacity is poorly developed and health is a low political priority, attention to and budgets for preventive care and the communicable diseases from which the poor most suffer may diminish.

Large scale decentralization is often undertaken for broader, political ends, and health ministries often have little say in the matter. The most they may be able to do is to try to see that decentralization proceeds at a pace which allows local authorities’ health planning and management capacity to be strengthened before they take full responsibility for health service implementation. But where countries still have their options open, a lower profile but thorough redesign of key local health management sub-systems may have more effect, because of reduced organizational and equity costs, than full scale decentralization.

Reorienting local management systems. The following kinds of changes to the design of five local management sub-systems are likely to be the minimum (i.e. least cost) set of changes consistent with achieving a good fit between PHC services and increasingly diversified local disease patterns.

While broad strategic control for the central ministry of health needs to be retained to ensure that overriding national health priorities are pursued, planning and budgeting systems will need to be reoriented so as to encourage local managers to respond to local needs. This might be approached by developing an annual action plan system in which the central government defines a) the broad strategic health priorities for which funding support for local authorities is available; and b) within this broad framework, encourages local authorities, through the offer of additional funding, to come up with plans that focus on the distinctive local epidemiological variation in their area. The central guidelines might specify that local authorities would be rewarded for plans which identify four or five key local epidemiological priorities/population risk groups; which describe how far existing inputs could be reallocated to deal with them; and which cost additional service delivery and information, education, communication (IEC) strategies which are required to meet local needs.

To make sense, such local plans need to be based on local epidemiological information, which pinpoints priority health problems and health risk groups. Disease surveillance systems for health service targeting therefore need to become more sophisticated. Instead of producing aggregated data based on regional or other administrative units, they will need to produce disaggregated data relating to local high risk populations. The reorientation needed to achieve this will be a major managerial challenge. Wider routine use of child growth monitoring may prove to be a particularly useful surveillance and targeting method, since the existence of PEM among young children appears to be a good indicator for identifying the lagging, poverty population groups which often have a high prevalence of both communicable and chronic disease, and hence are priority targets for PHC services.

Professionally organized IEC systems assume particular importance in mid-transition countries, partly because lagging social groups are hard to educate and need specially designed IEC efforts; partly because preventive or curative measures for several of the new interventions are hard for clients to accept and are therefore 'IEC-intensive'; partly because IEC is the only primary level intervention for several of the emerging diseases—HIV infection, cancer, heart disease and COPD, for example. Formative research at the local level to find out what clients think and want, and to learn more about their health
behavior, will become more important. Since most local authorities are not equipped to carry this out,
greater reliance on the private sector and on NGOs will be important. The production of IEC materials will
also need to be decentralized, so that materials can be quickly adapted to reflect locally specific and
frequently changing IEC messages.

Wherever the ‘easier’ clients have already adopted improved health behaviors, the quality
of service delivery, together with the quality of IEC, will determine whether health gains continue at past
rates among the remaining non-adopters. New quality control arrangements need to be developed at the
local level, focusing not just on service statistics, but on qualitative information gathering. Information
should routinely be collected on clients’ reactions to services; more effort should be made to learn from
what the best field workers do and to disseminate what they are doing through training and supervision; and
a ‘verbal autopsy’ system should be introduced, in which the cause of every preventable death would be
investigated by local health service managers and community leaders, to learn where the health system went
wrong and what should be done to prevent the same thing happening again.

Finally, the centralized, institution-based training systems which were appropriate for the
dissemination of standardized, infrequently changing curricula are no longer appropriate for the local
package approach, where what workers do—and hence what workers need to be trained in—varies from
place to place and may change rapidly over time. To improve the fit with the needs of the new ‘diversified’
PHC, training is best carried out at the district level and below, and best implemented by local health
supervisors who know local needs, know local health service strengths and weaknesses, and know the
training needs of individual workers. Local training allows training approaches and content to vary
according to the needs of each client and worker group. Local training is also cheaper, and so can be
carried out more frequently.

Special infrastructure for the poor. Although it is commonly asserted that priorities in
PHC should be switching away from expanding access to care and toward increasing the quality of
services, the fact remains that in many mid-transition countries, poorer and remoter provinces and districts
and poorer groups within better off districts still have much worse service coverage than average—even
though these groups have the worst health and nutrition status. Such groups need a better than average
ratio of workers to clients, both because of their heavy disease burden, and because IEC may be more
difficult and time-consuming for them, requiring more frequent visits to build understanding and trust. The
required worker:client ratio is likely to be at least 1:1,500 (the ratio that seems to be required for running
an effective child growth monitoring, counselling and supplementary feeding program), and maybe more if
serious attention is to be paid to the chronic diseases which affect older people (especially men), rather than
the children and women that have been the traditional targets of PHC programs. All this implies a
conceptual shift away from the ‘standard program for all’ approach of the 1980s toward a ‘poverty-pocket’
approach with special service infrastructure for those most in need.

Curative and referral care. The growing overall burden of disease (as populations grow)
and the especial increase in chronic disease (as populations age) imply a sharp rise in demand for curative
and referral care. The chronic diseases, where the only intervention at the primary level is IEC aimed at
prevention, are particularly referral-intensive when it comes to treatment. This implies another conceptual
shift, away from a preoccupation with outreach systems aimed mostly at prevention, toward an equal
concern for clinic and hospital care, and the development of the referral systems linking the three levels of
care. Major investment will be needed everywhere in staff, equipment and training, and in some countries
in additional facilities too. And governments and donors will face a major challenge in developing new
expertise in the somewhat unfamiliar areas of improving the management of referral systems and processes,
in improving diagnostic capabilities, and in reducing misprescription.
Private Sector Involvement In PHC

PHC is not only, and in many countries not even mainly, delivered by the public sector. This paper looks at the three main constituents of the private sector—communities, NGOs and for-profit providers—and argues a) for a careful reappraisal of the costs as well as the benefits of different types of community and NGO participation; and b) for much greater attention to the for-profit private sector, whose role in PHC is extremely important, but which has been neglected by both governments and donors.

Community participation. Community participation (CP) is defined in this paper as ‘the influence of communities, especially disadvantaged communities, on development decisions which affect them’. This definition encompasses a range of types and levels of CP, including consultation with program clients; monitoring of program outcomes by clients; client participation in service delivery; setting of program goals by clients; provision of program financing by clients; and full scale program management by clients. As with decentralization, achieving any of the above forms of CP involves organizational costs; and, as with decentralization, CP is currently regarded as something of a PHC panacea, and is embarked on with insufficient consideration of these costs. This paper therefore divides CP approaches conceptually into those which are the ‘minimum needs’ for achieving the reorientation required by the health transition; those which do not appear to be essential for this reorientation, yet impose heavy managerial costs; and those intermediate forms of CP where the benefits and costs are likely to vary so much in different country situations that generalization is difficult.

At least three forms of CP seem to be minimum needs for developing sustainable, locally appropriate, client-sensitive PHC: the continued use of primary care providers drawn from the local community; the development of a consultation process for learning and guidance from communities; and giving local leaders and community groups a monitoring role with regard to service performance. Effective consultation about communities’ health service preferences and communities’ views about health service performance requires equal participation of all affected community groups. The consultation mechanisms required may range from temporary focus groups to learn about IEC; to sample groups of sufferers of particular diseases to get feedback on services; to more permanent advisory groups representing poor sub-communities or occupational groups whose voice is not usually heard. Building a community monitoring role can be facilitated by providing community leaders and groups with a regular, user-friendly digest of local service statistics; and through regular oral briefings about actions that local health service managers are taking to make services better respond to local needs. Provision of such monitoring information makes communities more aware of their rights to receive services, and if necessary more able to articulate these through health service, political or media channels. From the provider perspective, giving the community a monitoring role powerfully reminds workers that they are there to serve their clients.

At the opposite end of the CP spectrum is community management of its own primary health services. As with decentralization in general—of which community management is the ultimate form—the managerial costs and potential inequities of community management are often seriously underestimated. Community leaders are unlikely to have the skills required to manage PHC and require training; and community leaders may not represent the interests of the poor, whose health and nutrition are worst. While such problems can be overcome by intensive training and careful supervision, it is difficult to overestimate the burden that such training and supervision poses for local health services which themselves need to significantly develop their capacities to plan, budget, target, train, communicate, and monitor the quality of care. The volume of advocacy for community empowerment tends to obscure the fact that there are few examples of effective, community-managed health programs on a significant scale—including in developed countries. There are serious questions about whether substantial resources should be devoted to community management on anything other than an operations research scale, given that this may divert
scarce managerial talent away from activities which can much more rapidly improve peoples’ health and nutrition.

The costs and benefits of other, intermediate forms of CP, such as community financing or community assistance with service delivery, are very variable. Their probability of success, and the management burden they imply for government, depend on cultural factors such as whether the community has a tradition of self-help, and the presence or absence of community organizations which may provide a base on which to build. But again, too often programs for revolving drug funds, cost recovery or women’s service delivery groups have been embarked on with exaggerated hopes of the benefits and substantial underestimation of the managerial costs. The failure of many past attempts in these areas suggests that a much more careful judgement needs to be made about whether they are an appropriate fit for the local cultural environment. Where doubt exists, operations research should precede the diversion of substantial staff time into activities which have a high opportunity cost.

Non-government organizations. NGOs have many advantages in health service delivery, including their commitment to the poor; their capacity to listen to clients’ needs; their flexibility to provide income-generating activities along with health care; their skill at mobilizing communities; and their ability to innovate, and to adapt their organizational structures and processes to changing needs. All of these characteristics put many NGOs in a strong position to respond to the changes generated by the health transition.

However, in the current enthusiasm for NGOs, a number of potential problems and disadvantages are often ignored. NGOs are often operating in the wrong geographic area or are too small to have a big impact on the most needy. Expanding them can lead to bureaucratization, and loss of the flexibility and commitment which are their comparative advantage. NGOs also vary widely in quality; not only must government develop costly mechanisms for winnowing out unsuitable NGOs, but significant expansion of NGO activity is likely to mean development of technical assistance mechanisms to help NGOs which are weak in particular areas, e.g. writing funding proposals. Finally, NGOs’ small average size means that to finance large scale NGO activity, governments must develop new organizations to review NGO plans and monitor progress and expenditures. These organizations themselves use scarce managerial talent—and impose managerial costs on the NGOs as well as governments.

These potential costs, as well as benefits, suggest two conclusions. First, that governments should modify their assumptions about what NGOs can contribute, and view them less as a cost-saving substitute for government effort, and more as a complement to government, especially in the areas of community mobilization and increasing service reach and quality. Second, governments should give more consideration to alternative roles for NGOs, in which they can leverage their skills by using them to improve the effectiveness of the much larger government infrastructure. For example, it may be more cost-effective to use NGO skills to train large numbers of government workers to be more responsive to client needs, than to use the same NGO staff to expand direct NGO-provided services to a small additional number of clients. In addition to training, NGOs have underexploited potential roles in consulting, evaluation, and developing and testing innovative health care approaches.

For-profit providers. The wide range of for-profit care providers at the primary level includes licensed allopathic practitioners, pharmacists, unlicensed quacks, licensed traditional practitioners, and traditional village healers. These are major providers of PHC in almost all countries, yet by and large public health services—and foreign aid donors supporting them—act as if the for-profit sector does not exist.

Like NGOs, for-profit providers often fit the perceived needs of clients better than public health services, because they are more accessible, both geographically and socially. Even though for-profit
providers respond to felt needs and therefore dispense curative rather than preventive care, this curative care is a convenient and valuable service. An active for-profit sector can help meet the likely growing demand for curative care, thus freeing up scarce staff time in the public sector to concentrate on providing preventive care for all, and on providing curative care also for the very poor who may be priced out of the private sector market.

On the negative side is the poor quality of much for-profit care. Unlicensed practitioners' remedies often are ineffective and sometimes positively dangerous for their patients. Allopathic practitioners routinely prescribe antibiotics for minor diarrheas and fevers. Injections are given for a wide variety of complaints which do not require them, often without sterilization. Many for-profit practitioners are therefore at worst a public health hazard, and at best, like many of their public sector counterparts, waste scarce resources and contribute to drug immunities. There is therefore as strong a case, and perhaps a stronger case, for government to intervene on public health grounds to improve the quality of for-profit care as there is for government to upgrade the skills of its own workers. Government intervention is therefore required in the interests of public health; but successful intervention also can lift some of the curative care burden from government in the future.

The unresolved issues are what form government intervention should take, and in particular the appropriate balance between support, such as training; and regulation, such as licensing traditional practitioners and limiting them to particular types of intervention. The paper discusses a range of options for both support and regulation. But, because there is so little experience with public interventions of this kind, it is difficult even conceptually to weigh the relative costs and priorities of different options. For governments with scarce management resources in the public sector, providing a full program of support and regulation for the commercial sector may be a distant vision; but no government can escape the need for stopping the worst forms of medical malpractice. Where regular monitoring of all for-profit providers is managerially impossible, spot checks and investigation of complaints by local health authorities, coupled with debarring with widespread publicity of those guilty of serious malpractice, could have significant public health impact with minimum managerial cost to government. In addition, widespread publicity in the media about the hazards of a few key malpractices (e.g. the dangers of HIV infection from unsterilized syringes) could do much to police the for-profit sector—at minimal managerial cost to government—through increased public awareness.
I. INTRODUCTION

Purpose

Increasing attention is being focussed on the implications of the demographic-epidemiological or health transition (as it is called in this paper) in developing countries. Studies like the 1993 World Development Report (World Bank, 1993), and the World Bank's Disease Control Priorities Review (Jamison et al, 1993) which preceded it, are taking a hard look at the costs and benefits of different health interventions in an environment of rapidly changing disease patterns, and drawing conclusions about new priorities for resource allocation and health policy. But currently not so much thought is being given to the implications of changing disease patterns and changing intervention priorities for the management of primary health care (PHC) programs.

There are several reasons why management questions are receiving less attention. One is simply the newness of the concern with the health transition. Another is a continuing preoccupation among policy-makers in many quarters with technical and economic issues at the expense of implementation strategy issues. Third, a tendency among health managers to fire-fight day to day, operational management issues at the expense of dealing with broader, strategic management issues. One reason for this is the lack of incentive for PHC managers to think strategically; companies which fail to adapt strategically go bankrupt, public health systems don't. Finally, we lack an accepted conceptual framework for analyzing management issues in PHC—in particular we lack a dynamic conceptual framework that addresses the management implications of rapid change.

This paper is an initial attempt toward such a dynamic conceptual framework. It explores the following questions:

How is the PHC task changing because of the health transition?

What are the implications for organizing and managing PHC delivered by Ministries of Health?

What are the implications for the way governments should involve and manage institutional resources outside the public sector in the delivery of primary care?

What are the criteria for judging whether a given nation's PHC management strategy is heading in the right direction?

As these questions indicate, the scope of the term management as used in this paper is a broad one. It embraces not just the implementation of a given program, i.e. operational management, but also the reshaping of program designs to meet new needs—or what the academic literature calls 'adaptive management'. This kind of management is the concern of health policy-makers as well as implementors, because it involves changing organizational priorities, structures and procedures. But although it involves the policy-maker, it has a micro as much as a macro focus, in that systemic program management changes are only valuable insofar as they support the case management concerns of the field worker, and are based on an understanding of the needs of village and slum communities.
Management issues remain something of a black box, with no generally accepted methodological toolkit for approaching them, as there is for example in epidemiology. However, at least two approaches which are appropriate for analyzing a rapidly changing environment have not been adequately exploited in the field of PHC. The first, the 'strategic management' approach, was originally developed in applications to western business by Chandler (1962), and further developed by authors such as Lawrence and Lorsch (1967) and Miles and Snow (1978). It argues in essence that management strategies, structures and processes need to vary, depending on the nature of the task to be undertaken and the environment in which the organization is operating. Thus, the structure and processes which are appropriate for managing a car assembly plant will differ from those appropriate for managing a consultancy firm; and will differ again from those needed to manage, say, the door to door sale of cosmetics. This strategic management approach is not new; but it is being actively applied in the business world. For example, corporate giants like IBM have realized that their bureaucratic management structures are less effective than their smaller rivals when it comes to creating new products; in an attempt to preserve their competitive edge, the big firms are forming smaller, spin-off companies to handle creative design, which attempt to mimic the freer organizational structures and processes of the smaller competitors.

The strategic management approach was applied for the first time to third world development problems by Samuel Paul, in two books 'Managing Development Programs' (1982), and 'Strategic Management of Development Programs: Guidelines For Action' (1983, reprinted 1991). In them, Paul analyses a number of successful programs in various sectors, and shows how their success depends on the degree of fit or congruence they achieved between strategy, structure and process, and the given task and local environment. The table below summarizes some of the key concepts and vocabulary from these books.

The strategic management approach has since been applied to the management of population programs in developing countries (see, for example, Maru (1988); Ness (1988) and Giridhar (1988)) and more recently to US hospital management (see, for example, Shortell and Zajac (1990)); but applications do not yet appear to have been developed for the management of primary health care.

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<th>Table 1: Strategic Management: Concepts and Vocabulary</th>
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<tr>
<td><strong>Strategic Management</strong>: The set of top management interventions which provides the framework for day to day operational management.</td>
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<td><strong>Fit</strong>: The degree to which management strategies, structures and processes together make sense in terms of the organization's goals and environment.</td>
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<tr>
<td><strong>Environment</strong>: The forces outside the organization which present opportunities and constraints to the organization. Examples are political conditions, the external policy framework, local institutional arrangements, clients' priorities and cultural beliefs.</td>
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<tr>
<td><strong>Structure</strong>: The durable arrangements in an organization which define reporting relationships, and the distribution of authority and responsibility.</td>
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<tr>
<td><strong>Processes</strong>: The instruments open to managers to influence the behavior of workers and clients. Examples are processes for training, monitoring and rewarding workers, or for understanding and attracting clients.</td>
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The concept of 'fit' is one underlying conceptual approach used in this paper, applied to explore the way in which the fit between PHC management strategies, task and environment are deteriorating and need rethinking, as both the PHC task and the PHC environment change. The first part of the paper therefore explores the nature of these changes in countries passing through the health transition. The second discusses the implications for the design and management of PHC programs run by Ministries of Health in the developing world. The third looks at the comparative advantage of working with institutions outside the MOH in delivering the 'new PHC', and in particular the implications for the way in which governments should seek to manage the private sector.

The second underlying conceptual approach used in this paper is based on what may be termed the economics of organizational change. The idea that organizational change has costs is critical for analyzing options in an environment of dynamic change. Thus, while a changing task may suggest (in terms of fit) a new structure or new processes to manage it better, there are costs of getting from here to there. These may be direct financial costs, which can be fairly easily quantified, for example staff retraining costs. But three other forms of cost of organizational change are often neglected because they cannot be quantified: disruption costs, political costs and opportunity costs. These can best be illustrated by example. A convincing theoretical case may be made in a particular situation for a move from a vertical to an integrated PHC service delivery system. However, the restructuring required will lead to a substantial period of confusion, while staff are retrained and get used to different tasks and different working relationships after training (disruption costs). In addition, some key managers, or some entire cadres of staff may feel that they lose out by the changes proposed; they may overtly support the proposed reorganization because it has the support of top management, but covertly undermine it (political costs). The time taken by managers and staff at all levels to initiate, sustain—or indeed subvert—change has costs in terms of other activities foregone which are particularly high when managerial skills are scarce (opportunity costs).

Because no managerial change is cost-free, this paper applies two key organizational economics tests to managerial changes. First, what are the disruption, political and opportunity costs, and does the likely benefit of the change outweigh the costs? If the answer to the first test is yes, second, given that all change is costly, is the managerial change that is proposed the absolute minimum change that is needed to achieve the required goal?

**Audience, Scope and Limitations**

The intended audience of this paper is developing country health policy-makers and planners; researchers working on health strategy and management issues; and aid agency officials concerned with broad strategic issues in PHC.

The paper's scope is limited in four main ways. Because it focuses on the strategic level of management, it has little to say about the nuts and bolts of day to day management, for example of logistics or accounting systems, important though these systems are. Second, it limits itself to the PHC services under the strategic control or influence of ministers of health and nutrition; it does not address broader strategic issues such as linkages between PHC and education services, or the allocation of financial resources to PHC. Third, it attempts only to provide a general conceptual framework, rather than marshalling empirical evidence to test the framework in specific country situations. Consequently—fourth—it by definition cannot explore the variations in management strategies required to respond to specific country cultural or political conditions.
Because of the importance of the local cultural and political environment to the management of developing country health services, this fourth limitation is a very significant one. Therefore, if the conceptual framework developed in this paper seems in principle to be analytically useful, the next step would be to apply it in a series of specific country cases. This would help to test its validity and refine it, and allow for the exploration of the concepts of fit and of organizational economics as they apply to specific cultural and political environments. It would also provide an opportunity to draw strategic management lessons from comparative country experience.
II. THE CHANGING SCENE

This section looks at how the task and clients of PHC are likely to evolve as countries pass through the health transition. But first, as a benchmark against which to note change, it reviews some of the basic concepts of PHC, and how these have or have not been put into practice since Alma Ata.

PHC Theory and Practice

The PHC concept was to bring a limited number of simple, cheap health technologies to large numbers of people in need by means of community based paramedical staff. The focus was on preventive rather than curative care, and particular attention was to be paid to accessibility of care and equity, to community participation, and to the integration of care and intersectoral coordination.

In practice, more progress has been made in some of these areas than others. A wide range of simple, cheap technologies has been developed, and considerable progress has been made in putting together basic packages of health interventions to be delivered to large numbers of poor people. Examples are the GOBI package developed by UNICEF in the 1980s and the six-intervention child survival package being introduced throughout India from the beginning of the 1990s. Entirely new outreach systems based on village clinics and local paramedical workers have been established, frequently on a very large scale. Integrating these new systems with existing vertical disease control programs has been difficult for many countries. Nevertheless, they have done much to increase equity and access to care and related declines in infant and child deaths, as is well known, have been unprecedented.

Less progress has been made with community participation and intersectoral coordination. A likely explanation for this is that these aspects of PHC are more managerially challenging, because they involve the establishment of politically or culturally complex links outside the Ministry of Health—whether with other line ministries or the general public. It is probably not accidental that the aspects of PHC which have been more successful in practice have been those under the control of single ministries, and those which have moved in the direction of simplifying rather than complicating the management task. Examples are the limitation of the types of intervention to those which poorly educated workers can understand; and the limitation of the number of interventions to what they can realistically carry out. PHC tends to have had more impact where workers have focussed on doing a few tasks well, usually in practice immunization, ORT and—at least in Asia—family planning.

The organizational environment in which PHC developed was one in which the delivery infrastructure at the periphery was weak—in some countries almost non-existent. Management had to be centralized, because there was little managerial capacity at province and district levels, and outreach systems could not handle more than a standard service delivery package. Fortunately, from a managerial standpoint, the epidemiological situation was also fairly uniform in the poorer regions of most developing countries, with the majority of deaths caused by a few diseases—notably diarrheas, pneumonias, neo-natal tetanus and measles. Under these conditions, a standard service delivery package could—and did, in many places—have a significant impact on mortality. Put in terms of the concepts of strategic management, there was a good fit between the task to be achieved—reducing mortality in the early stages of the health transition—and the strategy—what may be termed the 'standard package approach'—used to achieve it.

While this may still be the case in countries in the early stages of the health transition—such as many Sub-saharan countries, or Nepal and Afghanistan in Asia—in many other countries the PHC task and PHC's clients are changing, often rapidly. These changes call into question whether the fit between the tasks now to be achieved and the standard package approach is adequate—in other words
suggest that we may expect diminishing returns from existing PHC strategies. The remainder of section II explores the nature of these changes.

**Epidemiological and Client Diversity**

The changes involved in the demographic and epidemiological transitions are described in detail in Jamison et al (op. cit.), and are only summarized here. The key change is the growing diversity in the pattern of disease. In the early stages of the health transition, as noted above, a handful of diseases were responsible for the vast majority of deaths. But as inroads have been made into the immunizable diseases and diarrheas in many countries, the pattern of disease is becoming much more varied. Health services are focusing increasingly on morbidity as well as mortality, and, as populations age, the chronic as well as the communicable diseases are becoming a concern. No longer can a standard package of a few interventions deal with the main problems. This change is a major one in global terms. The countries going through a rapid health transition (China, India, Indonesia, Philippines, to mention only the most populous in Asia) include the majority of the world's poor.

An important aspect of the transition is that it is not a uniform one within countries; not only are more diseases important, but it is not the same group of diseases which is important in all areas of a country. This is the consequence of a number of factors. Some relate to environmental conditions (which may favor a disease in a particular region); others relate to urbanization (encouraging STDs and TB); others to uneven development of the health services (access to or quality of PHC services may be poorer in some areas, leading to a local lag in the transition); some relate to characteristics of the client population which for one reason or another make them slow to change their health behaviors.

Client as well as disease diversity is therefore a characteristic of the health transition. ‘Lagging’ populations tend to be poorer people, often living in remoter rural areas or in urban slums. Sometimes, they are culturally separate from the mainstream population, such as tribal groups or religious minorities. They may be concentrated in specific geographic areas, or, more challenging from a managerial point of view, scattered among better off urban or rural population groups. The phenomenon of lagging groups is of course not a new one; they are as evident in Sub-saharan Africa as they are in Asia. But they are arguably not as important a target in the early stages of the health transition. To put it crudely, when death rates are high everywhere and resources are scarce, it makes sense to concentrate them on the general population where returns to money and effort will be highest. As the overall death rate falls, attention must turn to the lagging populations still suffering from the communicable diseases typical of the early stages of the health transition.

These lagging population groups, existing side by side with groups that are passing more rapidly through the transition, have given rise to the term 'epidemiological polarization', in recognition of the coexistence of 'poor' and 'non-poor' disease patterns. Somewhat simplistically, the polarization is often seen in terms of a non-poor disease pattern increasingly dominated by chronic disease, while the poor suffer from the traditional communicable diseases. However, this view of epidemiological polarization is generally incorrect and underestimates the disease burden of the poor, because the poor often suffer from a heavy burden of both communicable and chronic disease—an epidemiological concentration among the poor, rather than the simple polarization which is often assumed.

Finally, on top of the growing disease diversity brought by the changing structure of populations and success with a few key PHC interventions, comes additional diversity brought by the emergence of new diseases and the resurgence of old ones. AIDS is an entirely new challenge for PHC, but has also brought with it a resurgence of TB. And malaria continues to spread following the breakdown of vector control programs in many countries.
New and Harder Interventions

Because of these changing disease patterns, a new set of interventions is coming or will soon come to the front line for implementation. These interventions can be divided into two types: those which are already in existing PHC packages but are not receiving much priority; and those which are not generally now included in PHC packages, as follows.

Interventions which fall under the first category include those against pneumonia, malaria, micro-nutrient deficiencies and protein-calorie malnutrition; and those promoting safe motherhood and family planning. They are moving to the front line for different reasons. Pneumonia, a major cause of death in countries early in the health transition, has remained a major problem even in mid-transition countries because of the lack of an appropriate primary intervention technology; only recently has this been developed. Malaria is a resurgent disease causing both significant infant and child mortality and serious adult productivity losses. Micro-nutrient interventions have jumped in priority because of recent research showing greater links between vitamin A, iron and iodine deficiencies and death, disease and mental retardation than previously believed. Protein-calorie malnutrition was a neglected problem in most countries, but again research has shown important links with infant mortality, poor school performance and low productivity; nutrition education, growth monitoring and supplementary feeding are beginning to get higher priority in PHC programs. Safe motherhood interventions, also not a regular part of most PHC programs, are becoming a priority since the toll of maternal mortality has become more fully appreciated and since technologies for detecting and dealing with obstetrical risk cases are now developed to the point where large scale implementation is possible. Finally, family planning is likely to get increased prominence for three reasons: as a neglected element of safe motherhood; as an underemphasized means of reducing infant mortality; and because of increasing concerns about population growth. (While family planning has been a significant part of many PHC programs, the intervention has often been partial because a full range of temporary and permanent methods has not been offered.)

Interventions falling under the second category are somewhat less predictable, because the work of redefining health priorities is still under way. But they are very likely to include interventions against sexually transmitted diseases (STDs), including AIDS; TB (spreading rapidly because of its links with AIDS); gynaecological infections; heart disease; COPD; cancer of the lung; cancers of the cervix and breast; and perhaps diabetes. These new concerns are likely to join the front line of PHC both because these diseases are now becoming important in countries passing rapidly through the health transition, and because fairly simple, fairly cheap interventions can be implemented at the primary and secondary level. In some cases (gynaecological interventions, STDs other than AIDS, TB and heart disease), the intervention would include prevention at the primary level, with case detection and treatment at the secondary level. In some (AIDS, COPD and the three cancers), the intervention would include prevention (or awareness-raising in the case of breast and cervical cancer) at the primary level, referral for case detection at the secondary level, and treatment at the tertiary level.

Even though these emerging priorities will not all be priorities at the same time and in the same place, it is clear that the broader range of interventions to become part of PHC presents a significant new managerial challenge. This challenge will be all the greater, because it can be argued that the set of emerging priorities outlined above is also likely to be generally managerially hard to implement. This important case can be made as follows.

The managerial challenge presented by a given intervention depends on at least two factors: the difficulty it poses for workers to master and deliver the technology; and the resistance that clients present to its adoption (the latter being a measure of the challenge of the communication task). On
this basis, interventions can be crudely ranked in terms of difficulty, with the hardest being those both
difficult to deliver and with low acceptability to clients; the easiest being those simplest to deliver and with
low client resistance; and a medium group where one factor is low, one high. Smallpox is an example of a
disease which was relatively easy for workers to combat (simple inoculation, stable vaccine, easy case
detection), and with high client acceptance (high fatality rate, clear symptoms); and this helps to explain
why it was the first disease to be eradicated.

The common current and likely future PHC interventions listed above might be ranked by
this method as follows. In the 'easy' category might come immunization, vitamin A, iodine and pneumonia
control. Immunization because, on the worker side, injections are fairly easy to give and the number of
client contacts required is limited; on the client side, because the immunizable diseases are usually
recognized as serious health problems by clients. (Measles immunization could arguably be distinguished
for this analysis. It is harder to implement because the vaccine is less stable, and clients in some cultures
do not fear measles as they do tetanus and polio, which are likely to be the next diseases to be eradicated in
many countries.) Mass dose Vitamin A supplementation would come in the easy category because it is
simple to deliver (dietary vitamin A is another matter), and because the danger of blindness helps to ensure
client acceptability. Iodine supplementation would be there for similar reasons—a supplement which is
easily delivered and needed less frequently than vitamin A, and because of the visible nature of goiter.
ARI control may also join the 'easy' list, because the new technology is quite easy to master (with
appropriate training) and because the lethal and identifiable nature of pneumonia creates public demand for
an intervention.

In the hardest category might come family planning, and interventions against protein-
energy malnutrition (PEM). Family planning because, on the worker side, provision of high quality advice
on the full range of contraceptive methods is a difficult task; while on the client side most mid-transition
countries have now satisfied latent demand for contraception and face the task of persuading more resistant
groups that adoption and, more difficult still, continuation of FP is in their interests. PEM because growth
monitoring and supplementary feeding are hard for workers to manage; and because changing clients' food
habits is difficult to achieve, both because the existence of malnutrition is often not recognized, and because
feeding behavior often is related to deeply held traditional beliefs.

In the intermediate category might come a number of interventions which are relatively
easy to deliver, but which are difficult for clients to accept or understand. These might include those for
dehydration, gynaecological infections, AIDS, TB, lung cancer, heart disease, iron supplementation and
safe motherhood. ORT was initially seen as an easy intervention; but experience has shown that mothers
find it difficult to understand that they should feed a child with diarrhea more rather than less.
Gynaecological infections are relatively easy to cure; but women in many cultures are reluctant to admit to
and seek treatment for diseases affecting the womb and vagina. AIDS is relatively easy to prevent through
condom use, but changing sexual behavior is difficult. In addition, the timelag between infection and death
reduces client motivation to change behavior, because the fatal consequences of the disease are not
generally perceived until AIDS as opposed to just HIV infection has become widespread. (Most mid
transition countries have not yet seen the widespread AIDS fatalities of Sub-saharan Africa, though
Thailand and India are probably on the verge of an AIDS epidemic which could transform client
consciousness.) TB now has easier and cheaper drug regimens for providers (subject to what may happen
with resistant strains in the developing world); but compliance with regimens remains a problem on the
client side, because of the disappearance of symptoms and consequent discontinuance of treatment before
the disease is cured. Smoking/ventilation, dietary and exercise behavior changes which could prevent the
majority of lung cancers and much COPD and heart disease are easy to recommend, but difficult behaviors
for clients to adopt; and the often long time lags between the adoption of adverse behaviors and the
beginning of disease blunt clients' perceptions of cause and effect. Iron supplementation is easy to deliver,
but client acceptance difficult to achieve because the existence and serious consequences of anaemia are not obvious to clients, and because prophylaxis has to be kept up over a long period, sometimes with side-effects. Administering a check-list to detect those difficult births which can be predicted before labor begins is also relatively easy, but compliance with referrals for hospital delivery notoriously difficult to achieve, before clients have already begun labor and are in danger.

An added twist with regard to the above group is that AIDS and other STDs, TB, lung cancer, COPD and heart disease affect men as much as and in some cases more than women. This adds another dimension of managerial complexity, since most PHC systems have in practice concentrated on maternal and child health, and hence on women in the reproductive age group. Malaria, intentionally omitted from the classification, is a still more special case, because vector control as well as chemoprophylaxis is often a key intervention, and hence the target group mosquitoes as well as people. Spraying is usually handled by a group of workers separate from the multi-purpose health community worker. However, a new role for the community worker in vector control may soon develop as the use of impregnated mosquito nets becomes accepted as a cost-effective intervention.

In summary (see table below), only three or four of the current or emerging PHC interventions fall in the easy category; unsurprisingly, these include immunization, the only one which has made truly great world wide progress. About nine of the likely priority interventions appear to fall in the hard or medium categories. These will require intensive IEC, and hence repeated contacts between worker and client. While there may be debate about the placing of one or two interventions in this ranking, the general conclusion seems clear that interventions to respond to the emerging disease patterns in mid-transition countries will present more serious management challenges than those emphasized hitherto.

<table>
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<th>Table 2: Manageability of Different PHC Interventions</th>
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<tr>
<td><strong>Easy To Deliver</strong></td>
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<tr>
<td>Immunization</td>
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<tr>
<td>Vitamin A</td>
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<tr>
<td>Iodine</td>
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<tr>
<td>ARI</td>
</tr>
<tr>
<td>ORT</td>
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<tr>
<td>Gynaecological Infections</td>
</tr>
<tr>
<td>HIV Infection</td>
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<tr>
<td>TB</td>
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<tr>
<td>Preventing Lung Cancer</td>
</tr>
<tr>
<td>COPD</td>
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<tr>
<td>Heart Disease</td>
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<tr>
<td>Iron Supplementation</td>
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<td>Safe Motherhood Advice</td>
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Increased Demand for Referral and Curative Care

Many commentators on the health transition have noted that one of its implications is a sharp rise in the demand for referral services for the chronic diseases. This has at least three causes. First, continuing population growth in developing countries. Second, the facts that populations are aging, as well as getting bigger, and that the middle aged and old are more prone to chronic disease. Third, because chronic diseases are intrinsically more 'referral-intensive' than the communicable diseases—that is, they require more doctor visits per patient.

Growing recent interest in the chronic diseases should not divert attention away from increases in demand for referral services which can also be expected for most of the other priority diseases identified above. Rising populations and persistent poverty mean increases in referral demand for the traditional PHC diseases too. Also, improvement in the quality of primary care will be a two-edged sword: on the one hand, more and better prevention reduces the need for referral; on the other, an improved supply of PHC will itself create increased demand, for both primary and referral services. These trends can be expected to affect in particular family planning referrals (for sterilizations and IUD insertions); protein-calorie malnutrition referrals (for severe and moderate cases not responding to education/supplementation); and diarrhea cases (for persistent, non-watery diarrheas, which do not respond to ORS).

To these 'traditional' sources of increased referral demand must be added the 'new' diseases likely to receive more attention as part of PHC packages: gynaecological infections, STDs, TB, obstetric emergencies, breast and cervical cancer, and ARIs. It is noteworthy that, with the exception of ARIs, all of these diseases or problems require referral to the secondary or tertiary level for either case detection or treatment. (In the case of ARI, assuming primary workers are allowed to use cotrimoxazole, most detection and treatment can be carried out at the primary level.) They are therefore, as a group, intrinsically more referral intensive than the interventions, such as immunization and ORS, on which PHC has traditionally concentrated. Once again, this is likely to be no coincidence; PHC has done best at the diseases with least managerial complications, including the absence of referral needs.

As with interventions at the primary level, it is possible to pick out referral interventions which are harder to manage than others. Three interventions may be the most difficult. First, gynaecological infections and second, STDs, because the intimate nature of these problems means that many referrals are not completed. Third, high risk birth cases, the problem here being both a supply and demand side one. With regard to supply, developing a rapid response referral system for the majority of obstetric emergencies which cannot be predicted in advance is extremely difficult; and with regard to demand, women experience both social and financial difficulty in justifying time spent away from the family waiting for the birth at a referral center, especially when they feel fine prior to delivery. (ARI referrals are arguably a fourth difficult case, also because of the key importance of the time factor; it should be noted, however, that this does not make ARIs a hard intervention to manage overall, because nearly all ARIs, unlike the three other interventions, can be managed at the primary level.) The following table summarizes the 'referral intensity' of different types of PHC interventions.
Effective referral systems are an essential part of effective PHC, on both psychological and epidemiological grounds. Clients' confidence in the PHC system will suffer unless they can see the availability of back-up referral care as part of the system. And if referral care is not made available, a ceiling on mortality and disease reduction will rapidly be reached in mid-transition countries, as they approach the limits of what they can do to improve access to and quality of primary level services. Improving referral systems at existing patient loads is already a major managerial challenge; the challenge will increase manifold with the additional demand for referral care we are beginning to see as the result of the health transition.

Most of the referral services discussed above are curative in nature; but the rise in demand for curative care will be as apparent at the primary level as at higher levels. This is again a function of the growing overall burden of disease, and of the improving quality of primary care generating its own demand. Rising demand for primary curative care will further increase the pressures on primary workers, in terms of the volume of work overall; in terms of the breadth of skills that they may be called upon to have; and in terms of the conflicts they must resolve in setting priorities between preventive and curative care when there isn't time for both.
III. PUBLIC SECTOR PROVISION OF PHC

This section looks at the implications of the changes outlined above for the design and management of PHC delivered by government agencies. It first argues the need for a move away from the standard package approach to what may be termed a 'local package' approach to PHC. It then explores four main management strategies for delivering diversified local packages to clients: the decentralization of control over PHC; the reorientation of local management systems as an alternative to full scale decentralization; the strengthening of PHC infrastructure for reaching the poor; and the strengthening of referral systems and their linkages with PHC.

A “Local Package” Approach

It was argued above that the traditional, ‘standard package’ approach to PHC no longer fits the need to respond differentially to a diversified disease pattern. Governments could respond to this problem in two main ways. First, they could train primary health workers in the whole range of new tasks outlined above. However, field experience shows that locally recruited village workers cannot absorb and deliver a wide variety of interventions given their limited education. Therefore, to deliver the whole range of interventions new cadres of better educated workers would need to be recruited, an approach with built-in disadvantages. Such workers could not be recruited from the villages and slums where they would work, and hence would have low acceptability to local clients as outsiders of higher social status. They would also have to be paid considerably more than community workers, so that this strategy would either become financially infeasible on a large scale, or would require decreasing the ratio of workers to clients to a point which would make the frequent client contacts demanded by the IEC-intensive new interventions impossible. This option therefore appears to fit neither the cultural nor financial environment of PHC. Nevertheless, it is a potential danger in countries which are overproducing doctors and nurses, and hence have a strong political lobby for ‘medicalizing’ outreach services.

The more sensible alternative appears to be to continue to rely on cheap, socially acceptable community workers with a limited number of tasks, but to make sure that their task package is not standard but focussed on the five or six highest priority local epidemiological or felt needs. Since these needs can vary substantially not only between but within districts, it follows that the requirement is for a system allowing many different package combinations—or what may be termed a 'local package' approach. Such a system, unlike the standard package approach, cannot be centrally managed if it is to respond to local needs. As is generally recognized, some form of decentralization has now become a necessity for further advances in PHC. The options for managing decentralization so as to diversify care are therefore explored in some detail in the next two sections.

Decentralization

Discussing decentralization is difficult. It is generally advocated, but often without defining what it is; without consideration of the political environment in which it is to take place; without reference to whether it is appropriate for some services and not others; or without analysis of its risks and dangers. This section discusses full scale decentralization, which is currently commonly advocated, and its political context; focusses on the risks and dangers as well as the advantages of full scale, rapid decentralization; and summarizes some lessons for planning and managing decentralization.

Full scale decentralization. Full scale decentralization implies the transfer of the authority to plan and manage development programs including PHC to politicians and bureaucrats at provincial or district level, together with transfer of the funds and spending authority for implementation. Depending on
the country situation, the power to raise revenues may also be devolved; but it is the devolution of planning, budgeting and spending authority which is the key to the transfer of power.

Decentralization is often discussed as if decisions on whether and how to decentralize are the sole prerogative of the Ministry of Health (MOH). This is never the case. Because decentralization is about the transfer of power and hence attracts strong political interest, health service decentralization must be seen in the context of broader government policy in this area. This is all the more true because in most countries Ministries of Health are relatively weak actors on the political scene, and rather than developing decentralization policy must usually simply accept it and see what latitude for manoeuver is possible within it. This section therefore focusses on the situation where full scale decentralization is being imposed on the MOH for broader political ends. Many countries in the health transition already are in this situation. China, for example, has already very substantially decentralized; and Indonesia and the Philippines are in the midst of large scale decentralization.

The dangers. Full scale decentralizations for political ends tend to be executed rapidly, because politicians wish to reap the benefits in terms of votes or other forms of political support within the lifetime of their government. They present at least three types of potential danger.

First, the redefinition of responsibilities at best entails significant disruption costs and often also substantial political costs. In particular, bureaucrats at the center may resist the devolution of power over budgets or, if they are obliged to hand over control over planning and budgeting, may seek to retain some control over spending by delaying the release of funds to lower levels.

Second, decentralization of control over health planning to local authorities may not be in the health interests of local people, especially poor local people. This is because local authorities unfamiliar with health planning tend to respond to local felt needs for curative care and consequently underfund preventive, primary care. This has proved a problem in China, for example. This tendency could be exacerbated to the degree that local governments are dominated by elites, who suffer less than the poor do from common communicable diseases and will therefore tend to give insufficient priority to interventions for them. And it can be still further exacerbated when local lobbies for other development sectors succeed in reallocating funds away from health to other activities. Local health planners often do not have the skills to make the case for allocating money to health, or for giving priority to preventive care; or if they do, may simply not have the power to sway local politicians. The result can be less access to care for the poor and less equity, an ironic consequence for those who advocate decentralization as a means toward these ends.

Third, the localization of control over health planning may particularly undermine efforts to contain and reduce diseases which spread easily from region to region. Such diseases included smallpox, and they now include the main vector-borne diseases, such as malaria, oncho and schisto. Only central or regional planners are in a position to see how these diseases are spreading and how to plan containment measures; conversely, in a decentralized system, one lagging local health authority can lead to outbreaks which may rapidly spread to other areas and threaten the achievement of everyone else's plans.

Lessons. Under full scale, politically driven decentralization, it is not an option for the Ministry of Health to stop the train because it wants to get off. Ministries must therefore seek to minimize the above dangers within the limits of what is possible. There appear to be three main avenues for action.
First, to make a strong case that full scale decentralization must not be unthinkingly applied to every intervention, and especially that control of the vector-borne diseases must remain centrally planned. There also appears to be a strong case for retaining strong central planning of AIDS programs in countries where the HIV epidemic is not yet out of control. This is because urban health authorities lacking a broad national epidemiological picture may not see the importance and urgency of containment measures in urban centers of prostitution and drug-taking where the disease normally begins, before it spreads into the rural areas where the majority of the population lives.

Second, to give urgent priority to strengthening health planning capacity at the lower levels of the system as a means of safeguarding the priority of preventive care.

Third, because such capacity-building takes time, to make the case for a slower, planned decentralization for health than for other sectors. Special pleading for the health sector appears justified, in that health responds demonstrably differently to rapid decentralization than other development sectors. For example, removing central control over the agriculture sector and freeing local grain markets can result in very rapid production gains in a short time (here China is a positive example). But 'freeing the market' to operate in health care does not have the same positive welfare effects, because of the lack of effective demand for preventive care, and the limited voice of the poor in determining health intervention priorities. During the transitional period while local planning skills are being developed, a case can be made to permit broad strategic control to remain with central authorities.

Reorienting Local Management Systems

The previous section argued that a full scale, rapid decentralization strategy for the entire health system is not an appropriate fit for PHC in many developing countries. This section explores an alternative option for countries which have chosen something less than full scale decentralization, or which have not yet clarified their decentralization strategy. It takes a 'minimalist' approach; in other words, bearing in mind the costs of rapid, full scale decentralization, it tries to define the minimum managerial changes needed to achieve the kind of reorientation required by the health transition. It argues that specific changes are likely to be required in the management of five key sub-systems: the planning and budgeting process; targeting and surveillance systems; health education; worker training; and management information and quality control systems.

Planning and budgeting. The need is for a planning and budgeting system which will encourage lower level managers to diversify services to respond to local needs, while at the same time retaining broad strategic control for central and provincial management. One possible strategy which might fit these needs is outlined below. (In the discussion which follows, 'higher level' and 'lower level' can be read as referring to either the center as it relates to the province; or the province as it relates to the district.)

First, to maintain broad strategic control, the higher level must retain the right to issue and enforce clear guidelines on resource allocation priorities. These would need to indicate the main diseases or activities eligible for expanded higher level funding support. Then, within this list, which might be something like the list developed in section II, an indication of broad 'framework' priorities would need to be given. For example, Gwatkin (1991) has made the case that the returns to reducing communicable diseases and malnutrition (CDM for short) among young people is far higher than reducing chronic disease among older people. Higher level guidelines might therefore specify that priority can only be given to chronic diseases in a particular district after CDM had been reduced to a given level, if in that district both CDM and chronic diseases existed and health service capacity makes it impossible at present to attend to both.
Second, the higher level might encourage the development of local packages by requiring lower level managers to draw up annual action plans focusing on the special variation in their areas. The guidelines might specify, for example, that district plans should: a) define four or five local epidemiological priorities and the population groups worst affected (province plans would normally encompass a broader range of priorities); b) describe how far existing inputs could be reallocated to respond to them, and what increment was required; c) describe and cost any special service delivery strategies needed (e.g., additional supervisors or transport for hard to reach areas); and d) describe and cost special IEC strategies to be followed to deal with particular local problems. In each case, managers would be required to explain how and why their area differed from the national or provincial average, as the basis for making the case for more resources. To keep plans realistic, the higher level would indicate to the lower level at the outset of the exercise the broad range of additional funds for which they could bid. Access to more than maintenance level funding from the higher level would be dependent on whether the case made by the lower level was convincing.

Third, the higher level would need to provide assistance with this planning process in various ways. At least initially, it would need to provide technical assistance in plan preparation to administratively weaker lower units to make sure that the health needs of remoter regions did not suffer simply because of their lack of planning capacity. For all lower level units, it would need to provide supportive feedback on the strengths and weaknesses of plans; joint review of outcomes as against plans; and dissemination of successful experience from one area to another.

The ear-marking of central funds to encourage variation to meet local needs would be an imperfect approach; theoretically inferior, for example, to moving to a zero-based program budgeting system. But such systems are a distant aim when local management capacity is weak and it is extremely hard even to disentangle existing financial flows. While not substituting for broader, longer term planning capacity improvements, the kind of incremental approach suggested might have several advantages. It would minimize disruption costs, by building on an existing base. It would give local managers a strong financial incentive to focus on diversifying care to meet the needs of particular diseases and client groups. It would preserve the center's role in reviewing plans and ensuring that they are in line with broad PHC policy, without involving the center in micro-management of lower level activities. And it would introduce an element of competition into the resource allocation process which would also act as a performance incentive for lower level units.

Targeting and surveillance systems. The need to concentrate local packages on particular diseases or population groups will require a more sophisticated approach to targeting and disease surveillance than has hitherto been needed. Surveys and information systems will have to be redesigned so as to produce far more disaggregated data. For example, while TB is a problem in the general population, aggregate data will give a reasonable epidemiological picture. But if it becomes localized in particular congested urban areas, high local case rates will not show up in region wide figures. Local case rates will have to be developed using the particularly affected population as a denominator, to serve as a basis both for targeting and for monitoring the performance of the local package devised for that area. Similarly, locally appropriate packages will need to be targeted on particular poverty groups. An example might be a large colony of landless agricultural laborers whose health and nutrition conditions lag behind the surrounding population.

Developing records based on specially affected and poverty groups as denominators will be a significant managerial challenge, because health information has traditionally been collected on the basis of administrative units—the district, or the health center area—which do not necessarily coincide with disease or poverty group concentrations. It will mean in practice that a district will have to produce two sets of figures: one for the district as a whole, to feed into the traditional health monitoring system; another
focussing on the locally important target populations, for disease surveillance, targeting, and monitoring the progress of special interventions.

Growth monitoring is likely to emerge as an increasingly important mechanism for screening and targeting in mid-transition countries. The evidence to date is that moderate PEM tends to persist in disadvantaged populations even after infant mortality rates have fallen and incomes have begun to rise. This suggests that, while IMR or low incomes can be equally satisfactory targeting mechanisms early in the transition, PEM rates become a more important targeting mechanism and indicator for lagging populations as development proceeds. Taking birth-weights and arm-banding 0-3 year old children should therefore become a routine screening mechanism for identifying lagging populations, followed by regular weight monitoring of 0-3 year olds in the lagging populations identified.

Some of the new diseases in the PHC armory also have significant targeting implications. Gynaecological infections, breast and cervical cancers affect women of reproductive age, a group which is already being targeted for family planning and pre-and post-natal care. But lung cancers, COPD and heart disease affect the middle aged and old, a group which has not before been a priority target of PHC. Targeting these diseases is not difficult in principle, since risk factors such as smoking and obesity can be readily identified by paramedical workers. The problem is that these diseases often exist in populations where the communicable diseases and malnutrition are still important. Smoking, for example, is rapidly increasing among the poor in Asia. Obesity is common in urban poor adults; it is often the result of continuing to consume calorie intakes traditional in a rural laboring society but no longer needed to support a more sedentary lifestyle. Such obesity can coexist with child malnutrition in the same family caused by ignorance of weaning requirements. Policy-makers will need to provide clear guidance about the priorities for targeting under these circumstances; or will need to strengthen the health delivery infrastructure so that both communicable and chronic disease problems can be tackled simultaneously.

Health education. A third theme developed in this section is the need for PHC workers to understand their clients' needs better, and to professionalize their communications skills. The need for information, education and communication (IEC) is of course not new; it is central to the preventive approach to care. But professional, client-sensitive IEC is emerging as a requirement for further progress in PHC due to three consequences of the health transition noted in section II. First, the increasing satisfaction of 'easy' latent demand for services, and hence the need to focus on lagging groups where the communications task is harder. Second, the fact that the majority of the interventions coming to the front line are less intrinsically acceptable to clients, and hence require repeated client contacts and more communications effort. Third, because the 'new' interventions to be added to PHC are solely IEC interventions at the primary level. PHC workers have no service to offer for the three cancers, STDs, gynaecological infections, COPD and heart disease other than their counselling skills.

The management of IEC for health and nutrition remains both centralized and hardware-oriented in many countries. Standard health messages for a few key interventions are developed at the center and passed down the system through the national training network. Standard posters, flipcharts and other communications materials are also produced at the center, and disseminated to all workers, irrespective of the disease profile or cultural conditions in their local areas. Clearly, these approaches do not fit well with the requirement for client-sensitive support for a local package approach.

For the future, the need is for communications support which is specific to clients' beliefs and behaviors in the local area, and to the local intervention priorities. The priorities for IEC therefore need to be locally determined, by the same provincial and district level managers who will be responsible for deciding on local packages. Much of the client behavior to be changed is deeply rooted in local culture, for example dietary patterns; or else it is intimate in nature, for example, sexual behavior. The primary
The IEC channel for IEC must therefore be inter-personal, building on the relationship already established between clients and community workers who are from the same cultural and social background. (This is not to deny the importance of mass media awareness campaigns, for example radio campaigns aimed at AIDS or smoking; but it is to assert that mass media approaches cannot be expected to substitute for inter-personal IEC.) The content of IEC messages must be highly variable, tuned to the particular behavior to be changed—or, in the jargon of social marketers, there must be a high degree of market segmentation, and for each segment messages must be aimed at specific resistance points. IEC materials must be directly supportive of the key messages to be conveyed orally, and hence must be revised frequently.

A key problem in meeting the above requirements is the complexity of determining the right message content for a given client group and intervention. Especially in the case of the very poor, health workers may not be fully aware of the reasons why clients do not adopt a given behavior, and therefore may not be in a position to develop relevant IEC messages. Or they may be aware of clients' beliefs and perceptions, but not know how to slant messages so as to complement rather than overturn traditional beliefs. Research through structured interviewing or focus groups has proved the best method for uncovering the reasons for client behavior; systematic field testing of alternative approaches is an essential complement. But district health management teams typically lack the skills, infrastructure and time for this.

Strategies therefore need to be found to couple specialist skills with local health administrations. This link needs to be a constant one, both because the process of learning is continuous, and because intervention priorities will change over time in the local area, and hence have different IEC support requirements. How best to do this will depend on local resource availabilities. One way is to build up IEC cells in provincial and district administrations which will carry out formative research and feed the results into training programs. But government typically provides neither the salary structure nor the career development opportunities to attract staff with appropriate specialist skills. Where appropriate resources exist outside government, a better strategy may therefore be for provincial or district health managers to contract with a local health NGO or private consultants to carry out formative research, test IEC approaches in the field, and develop appropriate support materials.

In many countries, budgetary procedures do not allow local managers the flexibility to contract with the private sector in the above manner; and in many countries, because of the lack of attention to professionalizing marketing skills in the social sectors, appropriate institutions on which to draw are scarce. The key role for the center in IEC may therefore be not to manage the entire process, as tends to be the case at present, but to facilitate the development of private social marketing institutions, using the budget process to do so. All mid-transition countries by now have some institutional base on which to build, usually consisting of advertising agencies with marketing skills but little social sector experience, and social research institutions and universities with some qualitative research skills but little health or marketing experience. By making earmarked consultant contract funds for IEC support available to lower level managers, the center can do much to encourage the involvement and reorientation of such potentially useful institutions. But if the non-government sector is to have the incentive to invest in reorientation, the center must be prepared to commit itself over the long term to this process, and to accept that in the early years there will be false starts and failed contracts which should not be allowed to derail the process.

A second strategy for the center to pursue is withdrawal from the large scale production of IEC materials, with which many governments are heavily involved. There are strong efficiency arguments for such a withdrawal. Governments are generally high cost printers, except perhaps for large print runs of standardized material. But when the requirement is for a large variety of materials specific to different regions, the private sector can do the job better, especially since the falling cost of printing technology has eased private entry to the market and encouraged competition. The printing of specialized IEC materials in
support of local packages can therefore usefully be handed over to private contractors at the regional or provincial level.

Training. The needs to diversify services and professionalize IEC together have important implications for the management of training. Currently, most pre-service training and much in-service training for primary health workers takes place away from the job at training institutions, following standardized training curricula. While the standardized skills that such institutions impart may have suited the standard package approach, this training strategy does not fit a situation where increasingly within a district, different groups of paramedical workers will be focussing on different service delivery tasks; and where workers will be putting across different IEC messages to different client groups—tailored perhaps in one part of the district to the perceptions and behavior of a poor landless laborer or slum-dweller group, in another to those of a particular religious minority.

This situation requires approaches to training which allow curricula to vary to meet local needs, and where staff can be quickly and cheaply retrained to respond to changing service delivery priorities, or new IEC approaches. Therefore, paramedical staff training must take place at the district level and below. Enough experience has now been gained with district training teams in different parts of the world to demonstrate that the quality of training provided by such teams can be at least as high as that provided by fixed institutions. Indeed, because training takes place in the field, it can be more effective—because workers can practice their skills in the work teams and in the environment where they will thereafter operate. Relevance is assured, and training in local worker groups fosters team problem-solving.

Different approaches to training at the district level and below are being experimented with. In some systems, the district training team itself trains paramedical workers. In others, the trainer is a supervisor at the sub-district level, with the district training team primarily responsible for curriculum development, supervisor/trainer training, and training effectiveness evaluation. In this case, the district training team is more of a district training support team. This latter approach seems the most appropriate for the emerging needs of PHC. It maximizes the local responsiveness of training, since training is done by a supervisor closely in touch with local (sub-district) needs and client groups. It provides professional training planning and evaluation skills which each supervisor/trainer cannot be expected to have. And it is cheaper than approaches where the district team trains directly, since these inevitably require a larger training specialist cadre at the district level.

Wholesale moves to this approach to training are likely to lead to greater disruption and political costs than those proposed for other sub-systems above. For example, the changes proposed to planning, budgeting and targeting systems intentionally affect processes more than structures, and hence minimize costly transfers of power. The changes proposed to IEC systems affect both structures and processes, but they are relatively inexpensive in terms of financial costs; and the lack of institutional capacity for IEC in most countries itself means that there is no powerful interest group for change to alienate. Institution-based training, on the other hand, represents a substantial share of health budgets, and is supported by two powerful interest groups: institution-based trainers whose jobs—or at least whose comfortable urban postings—may be threatened by decentralization; and professional interest groups or committees which often control the standardized content of institution-based training curricula.

The reorientation of training systems needs therefore to be carefully planned if it is to be feasible and effective. Moves to decentralize pre-service training may directly alienate both trainer and professional interest groups. On the other hand, in-service training is less well developed in most countries, and hence in-service training systems less well defended by interest groups. The best entry-point for training reform may therefore be to strengthen the in-service training system initially, and then to seek
reorientation of pre-service training once decentralized in-service training has stabilized and its quality has been demonstrated.

**Management information and quality control systems.** Work is going on in most PHC systems to improve the management information sub-system. It is generally aimed at relating indicators better to objectives; reducing the amount of information flowing upwards, and the time workers spend on reporting; reducing duplication in reporting forms and channels; improving data analysis at higher levels; and training managers to use information to a) provide feedback to workers, b) practice 'supervision by exception', and c) correct systemic problems. Much has been written on these important issues, and they are not revisited in this section.

However, the preoccupation with improving the collection and use of service statistics has been at the expense of attention to the routine collection of qualitative information about system performance. This information is essential, because service statistics are best at answering the preliminary question 'how many?', while managers should primarily be worried about the subsequent question 'why?'.-- why did things go so well in this area as opposed to that, why are we failing to make progress with this particular intervention? As the problems of access to care are gradually solved through infrastructure expansion, the 'why' questions about service quality become paramount. Answering them will be a precondition of further rapid progress with PHC in mid-transition countries, where demand has to be stimulated from lagging groups for services which are inherently difficult.

This section therefore argues that the fit of management information systems to the PHC task could be improved if qualitative information can be collected on a routine basis side by side with quantitative. It is suggested that managers and staff might focus continuously on four qualitative questions:

1. **What do the key client groups in your local area want from the local health service?**
2. **How satisfied do they feel with the way services are being delivered?**
3. **Which workers are performing really well in the local area, and why?**
4. **When preventable deaths occur for key targeted diseases, what went wrong in the health system?**

Questions one and two can best be answered by group consultation with local people. Local management's role here would be to ensure that separate consultations were carried out with the different priority client groups in the area, and in particular to see that the very poor were consulted. This will usually require separate meetings with poorer groups, since the poor are unlikely to speak up in front of village leaders. The answers to question one would be a key input into local definition of the locally appropriate package, which, it is important to note, may not simply be the package of greatest epidemiological priority, because local people may have other health priorities of urgent concern. Including in the initial package, say, a local disease which is a recognized problem because it keeps adults from working (but which is a low epidemiological priority) may make sense if it builds peoples' confidence in the health service. Then later, other problems (such as PEM), which may not recognized as serious though they are major contributors to death or disease, can be tackled with community support. The answer to question two would be a key input to defining the content of local in-service training and IEC.

Question three is best answered by local managers, who can see from the service statistics who the highest performing workers are. Some field managers are already familiar with the idea of management by exception as a supervisory technique, but hitherto has mainly been used for focussing more
supervision time on the weak worker. Equally important is to focus supervision time on the exceptionally
good worker, to see what are the lessons for other workers. (This is also something not accomplished by
systematic assessment techniques such as functional task analysis, which focus on averages across
workers.) Supervisors might investigate good worker behavior by accompanying such workers on their
daily rounds and trying to analyze what is replicable and what is non-replicable in the situation. For
example, if a worker's success seems attributable to, say, special social status locally, this is a non-
replicable factor; but if she has developed a specially good relationship with the local poor or is especially
successful at IEC, the techniques she is using can be studied and built into the training for other workers.

It is in failing to answer question four that the limitations of current, quantitatively oriented
MIS are most apparent. Indeed, they are dangerous by omission, because they chalk up the everyday
successes of immunization and ante-natal care, but allow the preventable death of a child to pass in silence.
Arguably the single most powerful way to improve management at the local level may be to routinely
institute 'verbal autopsies' for a sample of children dying from targeted diseases (indeed, with falling
mortality rates in mid-transition countries, verbal autopsies may be manageable for all child deaths in some
areas). The verbal autopsy would be a joint inquiry by the local health worker and local managers into the
causes of the death. It would determine the proximate cause, say dehydration, and underlying causes such
as malnutrition; and it would then focus on why the health service had not got to that child on time or with
the right service or advice, or, if the mother had been correctly advised, what prevented compliance. In
terms of lessons for reorienting local work routines, training content or IEC approaches, a day spent on
such an autopsy is likely to be worth a month's study of service statistics.

The preceding paragraphs have looked mainly at how qualitative performance information
could be used in an indirect way to change worker behavior through systemic management changes, for
example to training programs. But the above approach also has tremendous potential as a direct
motivational, training and problem-solving tool. If local managers asked such questions as a basis for
discussion at every monthly staff meeting, workers would be sent a clear message that defining and
responding to clients' needs was a high priority. If managers passed on at such meetings what they had
learned from exceptional workers in other areas, local workers would benefit directly. If verbal autopsy
results were used as case studies for joint discussion at such meetings, workers' problem-solving focus and
teamwork skills would be strengthened. This is why occasional qualitative studies by outside teams of
experts, though useful for particular purposes, cannot substitute for the development of a routinized
qualitative management information system at the local level.

That said, more sophisticated and systematic attempts to improve health system quality,
such as the Quality Assurance Project (see, for example, Brown et al., undated; and Nicholas et al., 1991),
are also important. In this approach, for each key intervention essential activities and minimum standards
of care are defined; program assessments are made to determine actual standards in the field; problem
analysis follows to determine the cause of shortfalls; and operations research develops and tests solutions
before changes are made to systems or training curricula. These approaches hold great promise, but have
some way to go before they can be adopted on a routine basis in the field. This is partly because the early
efforts have been expensive (both in financial and skills terms) because they have been highly dependent on
external technical assistance; partly because the focus has been mainly on improvement in the delivery of
single interventions, while the practical concern in the field is with multiple interventions delivered as a
package. While further investment in the development of formal quality assurance methodologies is a high
priority, there is no need to wait for the outcome of more research before adding a less formalized
qualitative dimension to management information systems, along the lines suggested above.
Special Infrastructure for the Poor

A common assertion about trends in PHC is that priorities should be switching away from expanding access to care toward increasing the quality of services. No one can object to greater concern with quality (although many practitioners would be unhappy at the implication that they have not been concerned with quality all along). But the idea that access to care is no longer a significant issue in mid-transition countries is a dangerous one. Considerable evidence (most recently, for Asia, in World Bank, 1992) indicates that poorer, remoter provinces and districts and poorer groups within better off districts still have much worse PHC coverage than average—even though these groups have the worst health and nutrition status. Clearly, very considerable investment in expanding PHC coverage remains to be made. This section argues that, in areas where poverty and malnutrition persist, not only must infrastructure be brought up to national norms, but that there may be a case, on managerial grounds, to bring worker/client ratios up to 1:1,000 or 1:1,500 even if this exceeds accepted national norms.

This case rests on a combination of factors which together add up to an exceptional workload for PHC workers in poorer areas. First, the poor have a uniquely heavy disease burden, and hence have correspondingly high demands for service delivery. Not only do they suffer more than other groups from the communicable diseases; they also, as noted above, often suffer simultaneously from the chronic diseases. Second, also as noted above, IEC is more difficult and time-consuming for these groups. Repeated visits need to be made to clients in order to build the relationship of trust and confidence between worker and client which is the foundation for successful inter-personal IEC. Third, the poor suffer disproportionately from PEM, and may continue to do so for some time after IMRs have been substantially reduced. (This idea, and the consequent need to expand nutrition education, growth monitoring and supplementary feeding interventions in countries passing rapidly through the health transition, is somewhat counter-intuitive. Arguments for it are set out in Annex I). As noted in section II, growth monitoring and counselling interventions for PEM are particularly managerially demanding.

The demands on worker time for caring for poor, malnourished populations are obviously at least what is required for intervening against PEM. This involves counselling of 20-30 pregnant women per thousand population (and ideally adolescent girls also) on appropriate nutrition; identification and supplementation of pregnant women at risk of having a low birth weight baby; weighing of all babies, and special follow-up and counselling of mothers with low birth weight babies; monthly nutritional screening of all children under three; monthly growth charting of children under three with second or third degree malnutrition, and special counselling for their mothers; and referral to a doctor and follow-up of children whose malnutrition appears to be accompanied by a persistent health problem.

The evidence from relatively successful targeted monitoring/feeding programs (such as the Tamil Nadu Nutrition Project (World Bank, 1990)) suggests that a ratio of one community worker for every 1,000-1,500 population is needed for effective performance of the above tasks, assuming that the worker is able to devote at least two thirds of her time to the program. Some governments may therefore need to hire additional workers if they have been running PHC on a worker/client ratio of say 1:3,000 or 1:5,000 population—ratios which may allow adequate delivery of other basic services. Others may need to engage workers in excess of the 1,000-1,500 ratio if their workers are putting half of their time or less into PHC—or else consider restructuring toward having fewer workers putting in more time, a choice which is reviewed in more detail in the discussion on community participation in section IV below.

The above worker/client ratios may be considered a minimum given that they are based on the workload for dealing with PEM among mothers and children. Since adult males in poor populations simultaneously suffer from a heavy burden of chronic disease, additional workers may be required to address their IEC and referral needs. There is very little evidence about the time requirements for this,
since outreach programs for the chronic diseases in developing countries are new, and case management protocols used in developed countries are likely to be an unsuitable guide. But it would be surprising if, taking the overall disease burden in poverty populations into account, a worker could provide adequate services to a population of much over 1,000.

In summary, the need for special infrastructure for the poor implies the development of multiple, 'poverty pocket projects' with special service delivery structures in mid-transition countries—an idea which runs somewhat counter to the thrust of PHC infrastructure development in the years since Alma Ata. These years have seen a reaction against small scale PHC projects which, it was felt, created non-replacable islands in a sea of poverty, and a move toward large scale standardized programs with the laudable aim of making the same services available to all. We will now perhaps see a different thrust, recognizing that equity and efficiency will now best be served not by further development of standard form infrastructure but by special services for the poor. In a way, this is an extension of the principle of management by exception, in which resources would be concentrated on the weakest clients, instead of on the weakest workers.

Curative and Referral Care

Since Alma Ata, the main concern has been with the development of outreach systems for preventive care. Now, management strategies must be reoriented to respond also to the rising demand for curative and referral care (pages 10-11 above), which must be satisfied if continuing improvements are to be made in health status. This paper is mainly concerned with the delivery of primary care; nevertheless, this section briefly outlines some of the issues at higher levels of the health system which will be important from a managerial perspective.

Curative care. An issue still to be resolved in most countries is the appropriate balance between the public sector and the for-profit private sector in providing basic curative care; this issue is returned to in section IV. But whatever overall balance is adopted, the public sector is likely to keep a significant role at the primary level in providing minor curative services for mothers and children; and to play an increased role at the secondary and tertiary level in treating referrals for the diseases listed in section II. These services are a necessary complement to preventive care. The demand for drugs used in these treatments will continue to outstrip budgets, making sound drug policies more and more important. To date, drugs policy as related to PHC has mainly meant the adoption of essential drugs lists, with little attention being paid to the equally important issue of misprescription. In-service training and better monitoring systems for prescription practices will become essential strategies, as workers begin to deal with a broader range of diseases and drugs, as waste increases, and as immunities encouraged by bad prescription practices reduce the effectiveness of some common, cheaper drugs.

Referral care. To the need for expanding the PHC infrastructure to serve the special needs of poor, malnourished populations must be added the more general need for major investment in the development of referral systems. In all countries, referral staff need augmenting in number and training to deal with a broader range of diseases, and equipment and laboratory facilities need upgrading. In many countries, much rehabilitation of existing and in-filling of new physical facilities at both first referral and district hospital level will be required. Though some of the cost will be underwritten by the development of health insurance systems, these will emerge only slowly. The bill for the public sector will be substantial, and beyond the resources of most countries. Donor attention will therefore increasingly shift to referral care. Both for the donors, which have few staff trained in the management of referral institutions, and for governments, this will be a major, new professional challenge.
More and better equipped referral institutions will further encourage demand for care in ways which will be both inequitable and inefficient if steps are not taken as a condition of upgrading and expansion to improve referral processes as well as structures. At least three issues will be important here: reducing by-passing, which leads to the inefficient use of specialized resources; improving the linkages between PHC and referral workers; and ensuring that the poor get access to the referral system. Each is discussed briefly below.

Most doctors spend the majority of their time seeing patients who could be advised by a primary worker; and most specialists spend most of their time advising patients who could be adequately treated by a GP. As professionals in referral facilities become better trained and equipped, the waste involved in the misuse of their time will become proportionately greater. Careful thought will have to be given to the development and enforcement of screening processes, so that, for example, a patient will only be allowed to see a doctor if he or she has first seen a primary care worker and obtained a referral slip.

Better communication between workers at different levels of the referral system will become essential. Most referral systems have so far not succeeded in developing feedback systems so that the primary worker knows the doctor's diagnosis of a referral case and can assist with appropriate follow-up care. Better downward communication is also an important step toward an effective drug policy, in that primary workers could have an important role in seeing that patients comply with the prescriptions issued by doctors.

Most important of all, steps will need to be taken to ensure that the poor get access to the referral system. As the burden of disease increases, there is a danger that better off patients will crowd the poor out of referral facilities. Where referral facilities are overloaded, health managers will therefore need to develop and enforce rules giving priority to referral treatment of health problems, such as malnutrition, which are principally suffered by the poor. Such changes on the supply side will need to be coupled with efforts on the demand side to stimulate the completion of referrals by poor people. These could include the provision of free travel on public transport; compensation payments made at the referral facility to partially offset the cost of income lost through completion; free or low cost accommodation for patients’ relatives near the facility; and free accommodation for high risk pregnancy patients awaiting delivery.

Summary of Differences between Standard and Local Package Approach

The following table summarizes the main differences in the design of PHC systems following the standard package and local package approaches.
<table>
<thead>
<tr>
<th>Intervention Approach</th>
<th>Planning &amp; Budgeting</th>
<th>Data Requirements</th>
<th>IEC Approaches</th>
<th>Training Approaches</th>
<th>Monitoring Approaches</th>
<th>Preventive/ Curative Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Early in Transition</strong></td>
<td>Standard Package</td>
<td>Based on standard recurrent inputs per population unit &amp; standard service delivery infrastructure</td>
<td>Aggregate data based on admin. units</td>
<td>Standard messages nation-wide; centrally produced materials</td>
<td>Standard national curriculum; infrequent in-service training; centralized training infrastructure</td>
<td>Emphasis on numbers of clients reached; on service statistics; and on average worker performance</td>
</tr>
<tr>
<td><strong>Mid-Transition</strong></td>
<td>Local Package</td>
<td>Recurrent inputs based on local epidemiological priorities; special projects with special capital inputs for &quot;poverty pockets&quot;</td>
<td>Disaggregated, locally valid data, including data for high risk groups</td>
<td>Locally appropriate curricula, frequently revised; frequent in-service training by local staff at decentralized location</td>
<td>Emphasis on service quality; collection of qualitative data; and accounting for differences between workers' performance</td>
<td>Equal emphasis on curative and referral care, including both referral infrastructure and referral process improvement</td>
</tr>
</tbody>
</table>
IV. PRIVATE SECTOR INVOLVEMENT IN PHC

PHC is of course not only, and sometimes not even mainly, delivered by the public sector. Section IV looks at the three main constituents of the private sector—communities, NGOs and for-profit providers—and their potential roles in service participation. It is argued that community participation (CP) is an essential and NGO involvement a highly desirable component of effective PHC. But it also argues for a careful reappraisal of the costs as well as the benefits of different types of community and NGO participation, in the light of the demands on scarce public sector managerial resources of organizing and sustaining participation. Section IV also argues for greater attention to the for-profit private sector, which has an increasingly important role to play in countries going through the health transition, yet which is neglected by both governments and donors. The substantial managerial implications of supporting and regulating the private sector are identified, and it is argued that these need to be given as much priority by policy-makers and planners as conventional wisdom currently gives to community and NGO participation in PHC.

Community Participation

Like decentralization, CP in primary care is commonly advocated without defining the term; without reference to the cultural and political environment in which it is to take place; and without reference to the costs of establishing and sustaining CP as well as the benefits it may yield. More fundamentally still, the often heroic assumption is made that there is, in the first place, ‘a’ community to participate, rather than a set of disparate interest groups living together in a village. This section therefore begins by discussing what is meant by CP; and then considers the advantages and disadvantages of different approaches to CP in terms of their fit with the PHC task, and in terms of the organizational costs of establishing and maintaining CP.

Types of CP. In its broadest definition, CP can include a spectrum of community involvement ranging from community management of a program at strongest, to community participation in the benefits of a government-run program at weakest. But most working definitions of CP now exclude the mere participation of clients in a program’s benefits as a valid form of CP, i.e. CP has come to imply some form of non-passive involvement of communities in the design or implementation of a program. One definition of CP along these lines, which has been used by the World Bank, is ‘the influence of communities, especially disadvantaged communities, on development decisions which affect them.’ This broad definition is the one adopted in this paper. It leaves room for many different approaches, from consultation with program clients; to monitoring of program outcomes by clients; to client participation in service delivery; to setting of program goals by clients; to provision of program financing by clients; to full scale program management by clients.

This rather broad definition of CP is rejected by those development thinkers and PHC strategists who argue that community empowerment is the overall goal of development, and that therefore empowerment—community control over the design and management of development programs affecting the community—is the only valid form of CP. This is not the approach taken here, where the concern is not with empowerment as a development end in itself, but with improving health and nutrition status on a mass basis as rapidly as possible, in ways that are cost-effective and sustainable. While empowerment is one CP strategy that might, under particular circumstances, promote this goal, there is no evidence from the field that empowerment approaches are necessary for rapid, cost-effective, sustainable health gains. This issue is returned to below.
Generalizing about CP is somewhat dangerous, because more than with any other aspect of PHC what is possible and desirable in terms of approach depends on the local cultural and political environment. Nevertheless, irrespective of the environment, efforts to establish or strengthen CP involve organizational costs. These may be disruption costs, while established systems are reoriented. They may be political costs, as bureaucrats and doctors resist sharing control over programs with clients. Or they may simply be opportunity costs—time diverted to encouraging CP which might have been spent on other activities. From a managerial perspective, therefore, it is worth analyzing the costs of different approaches to CP as an aid to formulating strategies. Consistent with the 'minimalist' approach taken in section III to diversifying services and decentralization, consideration is first given below to those forms of CP which appear to be a sine qua non for achieving the reorientations required by the health transition.

**Community participation 'minimum needs'.** At least three forms of CP seem to be prerequisites for sustainable, locally appropriate, client-sensitive PHC: the continued use of primary care providers drawn from the local community; the development of a consultation process for learning and guidance from communities; and giving local leaders and community groups a monitoring role with regard to service performance.

The use of local people as intermediaries for service delivery and IEC has been one of the most effective PHC innovations. Unlike outside professionals, local workers do not need to spend time overcoming social barriers with clients; they understand many local beliefs and perceptions about health and nutrition, facilitating their work in IEC; and they have extensive existing knowledge of the demographic, health and poverty status of local families, facilitating the targeting of services on high risk clients. Furthermore, they live close to their clients, so their time is not wasted commuting to work and they are available for emergencies. Finally, they can be paid modest local wages (where workers are not volunteers), helping to ensure that underfunded health services reach the maximum number of clients. These advantages of community workers are well accepted. As argued at the start of Part III, the pressure on services of a growing disease burden and the need for frequent client contacts for the new generation of more difficult, IEC-intensive interventions may make large cadres of locally recruited community workers more rather than less necessary as the health transition proceeds.

There are strong arguments for not making community workers full time, paid, encadred employees, because this tends to distance them socially from the communities they are part of, and sets workers on a career ladder looking upward toward medical professionalization rather than outward to community care. It also can lead to unionization and wage inflation which may threaten equitable access to care in the many countries which can only afford large networks of community workers if they are modestly paid. On the other hand, the degree to which volunteer community workers are an appropriate fit for PHC has been questioned, and may be still more open to question as we look ahead to the demands of the health transition. If IEC is to be professionalized and the drive for quality improvement in service delivery is to be successful, workers' competencies will need to be significantly improved. It is unclear whether in an all-volunteer system the control that can be exerted over workers by local managers and supervisors, whether from the health service or the community, will be enough to ensure that standards are raised and maintained.

Moreover, the costs of increasing worker competency are substantial, involving one supervisor/trainer for every 10-15 community workers, plus support from the district training team. There are therefore strong arguments for having not just unencadred, paid, part time workers, but unencadred, paid workers who put the majority of their time into PHC. Having 10,000 clients served by 10 workers working two thirds of the time requires half as many first line supervisor/trainers as having 20 workers working one third of their time to serve the same population. Governments which may still have far to go...
in increasing access to care for the poor (section III) may find these cost-effectiveness considerations increasingly compelling as they expand.

A second required element of CP will be the development of a consultation process for learning and guidance from communities. The minimum needs for this were outlined in section III—a process for linking professional skills in IEC strategy/message formulation, testing and evaluation with local communities and health service managers; and a process for consulting local communities about their service priorities and organizing feedback from them about the services they are getting. As noted in section III, a key part of setting up this process will be to ensure that it takes into account the beliefs, preferences and reactions of all major sections of the community. Since these will commonly not be represented on village or 'community' health committees, it will usually be necessary to establish informal groups to complement formal structures. Such groups might range from temporary focus groups to learn about IEC; sample groups of sufferers from a particular disease to get feedback on services; or more permanent groups representing poor sub-communities or occupational groups.

Giving local community leaders and community groups a monitoring role with regard to the performance of local services will be a third CP minimum need, if community interest in PHC is to be sustained. This is a somewhat stronger form of participation than the systematic listening and learning advocated above; but a weaker form than coupling monitoring with a managerial role (discussed in the following section). Two types of monitoring information could easily be supplied to community groups (including local representatives of the media), but very seldom are supplied in practice. The first is a regular user-friendly digest of local service statistics, with a particular focus on how things are changing over time. The second is a regular oral briefing about actions that local health service managers are taking to make services better respond to local needs.

From the community's perspective, provision of such monitoring information sends the message that the health service is there to help, and builds up confidence in the provider/client relationship; makes communities more aware of their rights to receive services, and if necessary more able to articulate these through political, media or health service channels; helps communities see how they can usefully assist in program implementation; and helps communities develop more informed views about their health needs. From the provider perspective, provision of monitoring information powerfully reminds workers that they are there to serve their clients.

Community management of PHC. At the opposite end of the CP spectrum is community management of its own primary health services—the ultimate goal of the empowerment movement. Desirable though this may be in terms of the developmental and political benefits of giving people more control of their own destinies, this poses serious difficulties from a managerial and health impact point of view. Most of these difficulties are the same as those attached to full scale decentralization (section III), since community management is the ultimate form of decentralization.

To recapitulate these difficulties, the problems include the fact that the so-called community organization which runs the village may not represent the interests of all groups, especially the poor whose health and nutrition are worst. Second, that community managers may focus on curative rather than preventive care and hence not act in the best interests of local public health, even if they are concerned about the poor. Third, to the degree that community leaders get involved in day to day program management as opposed to broad program oversight, they are unlikely to have the technical skills to ensure high program quality in key areas such as targeting and surveillance, training or IEC.

While some, though not all, of these difficulties can be overcome by training, it is difficult to overstate the burden such a training program would pose on local health services which themselves need
to significantly develop their capacities to plan, budget, target, train, communicate, and monitor the quality of care. If trained managers are scarce, it would appear that the first priority is to use whatever resources are available to upgrade the skills of health managers at provincial and district levels, before asking these levels to encourage communities in directions in which they themselves are weak.

In summary, the volume of advocacy for community empowerment tends to obscure the fact that there are few examples of effective, community-managed health programs, especially on any significant scale—including in developed countries. There are serious questions about whether substantial resources should be devoted to fostering community management on anything other than an operations research scale. Significant commitment to community health service management may divert scarce talent away from activities which can much more rapidly improve peoples' health and nutrition; while, even if community management becomes a reality, it may not yield the equity and impact benefits that are assumed.

Intermediate forms of CP. The preceding sections argued that it is possible to make broad judgements about the advantages and disadvantages of certain forms of CP from a managerial perspective, and concluded that some are necessary to achieve impact with PHC, while others are so management-intensive to institutionalize that their costs are usually likely to outweigh the PHC impact. Between these extremes lie other forms of CP about which it is impossible to make generalizations, because the cost-benefit equation depends on the local economic and cultural environment. These include CP in health financing, and the formation of community groups involved in IEC or service delivery.

For example, the propensity of a community to assist in financing local care depends among other things on its wealth; the degree to which it views health care as important compared to other possible investments; the amount, cost and quality of existing sources of care; the community's tradition or lack of it with regard to financial self-help; and the degree to which the community is organized so as to be able to handle fund-raising and fund management. To the extent that these factors are favorable, so the managerial burden on the local health service of establishing local health financing systems declines.

Similarly, the potential for community group assistance with service delivery or IEC depends among other things on the importance attached to helping with health care as opposed to other activities (such as income generation); the degree to which the community has a tradition of group activity; and the degree to which existing community groups represent the local target groups for PHC. To the extent that there is a base on which to build, so the impact benefits of community group action will tend to be rapid and substantial enough to outweigh the opportunity costs of investing time in group formation and support.

While it is not possible to generalize in these areas about what should be done, it is possible to draw conclusions about how to approach the choice of CP strategy. Too often program components for revolving drug funds, cost recovery or mothers' groups have been embarked on with exaggerated ideas of the possible benefits of CP and substantial underestimation of the managerial costs. The failure of many CP attempts in these areas in the past suggests that a very careful judgement needs to be made about whether the CP strategy contemplated is an appropriate fit for the local cultural environment. Where doubt exists, small scale operations research should precede the diversion of substantial staff time to activities which have a high opportunity cost.
Non-Government Organizations

Much has been written about the advantages of using NGOs for social sector service delivery. This section briefly reviews these advantages; discusses the prospects for and managerial costs associated with an expanded service delivery role; and finally looks at the different possible roles for NGOs in PHC.

Advantages. A fundamental advantage of NGOs in PHC is that their staff are committed to helping the poor, and hence identify closely with their needs; responsiveness to the client is in-built, unlike the case of government health systems. NGOs make it their business to find out what local people want and give it to them. Often, peoples' felt needs for income-earning opportunities have been as or more important than their felt needs for health care. Many NGOs have had the flexibility, unlike Ministries of Health, to provide assistance with productive activities side by side with health care. This has increased client confidence in the NGO, and made it easier for the NGO to move ahead successfully with preventive care activities. Because NGOs are not hampered by bureaucratic rules, they can change managerial processes and structures with relative ease if they seem not to work in their clients' interests; they tend to operate as 'learning organizations' and are good at fostering innovation.

Because of the high quality of service they provide, and community confidence that contributions to NGOs will not be wasted, NGOs have often also been successful at getting community contributions for buildings, equipment or drugs, or are able to at least partially recover their costs by charging for curative care. A good measure of NGO success is the not uncommon sight of poor people using a high quality, fee-charging NGO in preference to a nearby lower quality, free government run institution. Many NGOs have community empowerment as their underlying aim. Because of their close relationships with communities and the amount of skilled time they are prepared to put into working with them, NGOs have often been successful in the more demanding approaches to community participation—developing monitoring and managerial roles for communities.

The small size of most NGOs has contributed to their effectiveness. NGOs which operate in only one local area naturally are in a strong position to get to know local people and local needs. Small organizations do not need the bureaucratic rules and procedures that are necessary tools for maintaining accountability and control in large ones. Small, flexible organizations which get things done attract staff who themselves are committed, talented and flexible, and thus these organizations tend to build on their own success. And because NGOs are small and without the resources of government behind them, communities do not approach them with the same expectations of free care that they may have from government.

These advantages of NGOs will also likely prove to be advantages in meeting the demands of the health transition. Commitment to local people and understanding of local needs give NGOs a head start in defining locally appropriate service packages and in choosing appropriate channels and messages for IEC. Flexibility in operation will aid in varying packages to meet changing needs, and in testing, varying and refining strategies. The particular focus of NGOs on the poorest members of society means that they will be less likely than government to underserve the communicable disease and nutrition needs of the poor as the overall burden of disease and the concern with chronic disease increase.

Prospects for expanding the service delivery role. In a few countries, often due to a legacy from missionary activity in the colonial period, NGOs are the major providers of PHC. But in most countries, they provide a small fraction of primary care, and, conscious of the above advantages, governments and donors have increasingly been seeking ways to expand the NGO role in service delivery.
However, in their justifiable enthusiasm to do this, they have not always fully acknowledged the costs and
difficulties from a managerial perspective. This section summarizes the issues involved.

First, NGOs' small average size, while contributing to their local impact, complicates the
job of a government seeking to put additional funding into the NGO network. Governments must ensure
that the plans put forward by NGOs are broadly in line with national PHC policy, and must ensure that
funds advanced to NGOs are spent for the planned purposes. The need to review plans and monitor
expenditures for what may be several hundred small organizations requires creating an institutional
capacity to do this which itself will absorb scarce managerial talent.

Such control mechanisms have costs for NGOs as well as government. NGOs frequently
complain that guidelines defining activities eligible for funding are too narrow or too rigidly applied,
especially when NGOs are involved in providing a range of services only one of which is PHC. NGOs
universally complain that they waste much time which could be devoted to delivering services complying
with the red tape of government reporting and auditing requirements. Often too, governments hamper
NGOs' rapid response to client needs by being slow in disbursing funds; or hamper their flexibility
to change strategy mid-stream by requiring clearance to do so if government funds are involved.

A second factor constraining NGOs' role in PHC is that NGOs themselves vary a great
deal in quality. The best are much more effective than government in delivering PHC, and at lower cost.
But many have staff of uneven technical quality; many give more priority to curative care and less to
outreach and preventive care than is desirable; many are highly committed and effective, but poor at
financial management, or at monitoring and reporting the progress they are making. (And at the fringe,
there are some NGOs which have been formed only to take advantage of newly available government
money either for political benefit or corrupt ends.) Finally, few NGOs have the technical expertise to draw
up plans for expansion, since NGOs tend to be better at doing than they are at writing. This variation in
quality and skills means that not only must government develop effective screening mechanisms for
winnowing out unsuitable NGOs, but that significant expansion of NGO activity requires technical
assistance for NGOs doing good work but deficient in particular areas. Organizing this assistance is
another costly task.

Third, NGOs may or may not be concentrated in the geographical areas where they might
be particularly effective; for example, in some countries they are concentrated in urban areas rather than
remoter, poor areas where government finds it hard to post and keep staff, and build relationships with
local communities. Governments may wish to encourage existing NGOs to expand into such areas, but
expansion beyond a certain point can lead to management problems for the NGOs. Large NGOs, like
governments, may find they need to adopt hierarchical structures and control procedures which tend to limit
their speed and flexibility of response. And large NGOs may find that their service quality begins to
decline as they expand, because they may not be able to find the caliber of staff they have been able to
recruit in the past.

Finally, NGOs need to be incorporated into the district management system. District plans
need to take account of the contribution of NGOs; district surveillance and information systems need to
include information from NGOs; and district managers will be involved to some degree in the regulation of
NGOs in their area. Thus, while the presence of NGOs helps district managers mobilize and reach
additional population groups, the need to liaize with NGOs is at the same time likely to increase rather than
decrease the managerial burden at the district level.

While none of the above issues should discourage governments from helping NGOs play a
greater role in PHC service delivery, they do suggest that this is a difficult and managerially demanding
business. Governments need to plan very carefully the procedures they will use to screen and monitor NGOs without smothering or alienating them; they will need to take careful decisions about how much scarce managerial talent to divert to NGO liaison; and they will need to develop mechanisms—also demanding scarce skills—for giving technical assistance to promising NGOs. Overall, it may be more appropriate to see greater reliance on NGOs as a way of mobilizing communities and increasing service reach and quality, rather than as a way of reducing the demands on government. And, in the current climate of untempered enthusiasm for NGO potential, governments may need to be more realistic about the amounts of additional funds that can be channeled through NGOs if high standards of service delivery quality are to be maintained.

Alternative roles for NGOs. If expanding NGOs can undermine their effectiveness, and liaizing with large numbers of NGOs is an additional burden on government, there is a case for looking for roles outside service delivery in which NGOs can influence PHC. The potential for leveraging NGOs' impact by encouraging their involvement in training, consulting, experimentation and innovation has not been sufficiently exploited.

Thus, for example, it may be more cost-effective to use NGO skills to train large numbers of government workers to be more responsive to client needs, than to use the same NGO staff to expand direct NGO-provided services to a small additional number of clients. Governments wishing to make the most of NGOs' potential contribution will therefore be looking for ways to involve them in training. At the central or provincial level they might help develop curricula for management training. At the district level and below they might advise district training teams, provide members for a district training team, or take over entire training teams depending on the local availability of suitable NGO skills. NGOs could also be involved in upgrading the skills of for-profit providers (see next section).

NGOs also have an underexploited role in consulting. They may be contracted to carry out independent evaluations of government PHC services in particular areas; to develop new approaches to service delivery, for example in improving referral processes; to advise on the design and implementation of cost recovery and community participation schemes; or to help other, less developed NGOs draw up expansion plans and improve their operational effectiveness.

Finally, many NGOs would have a comparative advantage in developing and testing IEC approaches which are appropriate for local needs, and in helping design processes for getting qualitative feedback from clients (section III), because NGOs have been particularly successful in listening to and influencing local people. Because of their flexibility, NGOs also have a comparative advantage in testing out different approaches to service delivery. More use could be made at the district level of contracts with NGOs for these purposes.

Developing NGO roles beyond service delivery would be difficult for both sides of the partnership. Not all governments find it easy to accept NGOs as evaluators and advisors; and many governments need to develop new budgeting and contract procedures so that local managers could hire NGOs. NGOs would be frustrated at having to work within the confines of government systems, but, knowing that government's role in public health is there to stay, would have to balance that frustration against the benefits of indirectly improving services for many more clients than they themselves could directly reach.

For-Profit Providers

The wide range of for-profit providers of care at the primary level includes licensed allopathic practitioners, pharmacists, unlicensed quacks, licensed traditional practitioners and traditional
village healers. Much debate has taken place about the degree to which these providers should be involved in PHC. But this debate is somewhat academic, since in almost all countries they already are major providers of PHC and in many mid-transition countries provide a far higher proportion of care than the public sector. Yet, by and large, public health services—and foreign aid donors supporting them—act as if the for-profit sector does not exist. This section argues that, for both positive and negative reasons, governments must play a much more active role vis-a-vis the for-profit sector.

On the positive side, for-profit providers often fit the perceived health needs of clients better than public services, because they are more accessible, both geographically and socially. Even though for-profit providers respond to felt needs and therefore dispense curative rather than preventive care, this curative care is a convenient and valuable service. Given that public health systems will be increasingly overwhelmed by the demand for curative services as the disease burden increases (section II), the for-profit sector's potential for meeting much of this additional demand should in principle be welcome. To the degree that the for-profit sector can expand to provide quality curative care for the better off, so staff time in the public sector can be freed to concentrate on preventive care, and on providing both preventive and curative care for the very poor who may be priced out of the private sector market. And where both private and public sources of curative care are established in the same area, clients' ability to vote with their feet for the most satisfactory service acts as a useful performance incentive for both sectors.

On the negative side is the poor quality of much for-profit care. Unlicensed practitioners' remedies often are ineffective and sometimes positively dangerous for their patients. Allopathic practitioners routinely prescribe antibiotics for minor diarrheas and fevers. Injections are given for a wide variety of complaints which do not require them, often without sterilization. Many for-profit practitioners are therefore at worst a public health hazard, and at best, like many of their public sector counterparts, waste scarce resources and contribute to drug immunities. There is therefore as strong a case, and perhaps a stronger case, for government to intervene on public health grounds to improve the quality of for-profit care as there is for government to upgrade the skills of its own workers.

Intervention in the case of the for-profit sector is therefore a public health duty incumbent on government; but, more pleasantly, a duty which will lift some of the curative care burden from government in the future. The remainder of this section discusses options for public sector intervention, including training and regulation to improve service quality; information exchange for better planning and coordination; and operations research to explore the potential of for-profit providers in areas outside traditional curative care. While an attempt is made to outline the main managerial issues, it is difficult even conceptually to weigh the relative costs and priorities of different options, because there is little experience with large scale public interventions of this kind.

Training. For-profit practitioners' professional associations currently offer very little in-service training to their members, and the majority of traditional for-profit providers anyway have no association and no opportunity to upgrade their skills. An important potential role for government is therefore to carry out or finance training which will increase practitioners' skills and reduce their hazards to health. In planning such programs, several questions need to be addressed:

(i) Who will be eligible for training? Governments need to decide whether unlicensed practitioners should be eligible for training. On the one hand, the medical lobby may argue that government should not condone unlicensed practitioners and that training involves conferring a form of official recognition on them. On the other hand, weak regulatory systems and local political pressures are likely to mean that non-licensed practitioners stay in business, and pragmatism may suggest that in their clients' interests they should have the opportunity to upgrade their skills.
(ii) What will be taught? The wide variety of types of practitioner means that separate training sessions need to be offered for each type of provider, with different curricula. To be attractive to practitioners, training needs to upgrade and broaden their skills, rather than simply correct their harmful practices. Governments need therefore to take policy decisions about what interventions they will encourage particular types of practitioner to deliver, and what problems they will be trained to identify and refer rather than treat. Training approaches will also need to be carefully thought out, especially for traditional practitioners, where the need is to improve practices without undermining traditional beliefs on which the demand for the traditional healer's services may depend. Central governments will need to be involved in defining the content of training, both because of the policy issues involved, and to bring in the special skills needed to devise appropriate training approaches.

(iii) How will training be structured? For-profit providers are unlikely to be willing to take substantial time away from their practices for training. Training may therefore need to be organized differently from the pattern locally adopted for public providers. For example, repeated, half day or evening sessions may be more effective than day or week long training sessions.

(iv) What is the incentive to be trained? Careful thought also needs to be given to the incentive for for-profit providers to come for training. At one extreme, training might be made compulsory as part of a certification process without which providers could not stay in practice. On the other extreme, training might be purely voluntary, relying on practitioners' professional or commercial interest in up-grading their skills to act as an incentive. Or in between, governments might pay practitioners to attend training, to compensate them for lost time and income. Since there is little experience in this area, most governments would need to carry out operations research to see what works best.

(v) What will the managerial burden be on local health services? Given the large numbers of for-profit practitioners, the need to train them in separate practitioner type groups, the need for repeated sessions, and the need to offer training at decentralized, convenient locations, the burden of implementing such training will be a heavy one. Central and provincial governments need to make careful estimates of the time and staff implications for district training teams, and to explore the extent to which NGOs or qualified for-profit providers could be contracted to assist.

Regulation. Offering training to for-profit providers is a positive approach, likely to strengthen the working relationship between public and private care, and improve their complementarity. Heavy regulation of the private sector is likely to work in the opposite direction, with public health providers being seen by for-profit providers as policemen rather than colleagues cooperating in dealing with a rising disease burden. Striking the right balance between support and regulation therefore involves difficult trade-offs. Some of the options for regulation are as follows, in ascending order of managerial costs to government:

(i) Penalizing harmful practices. Most governments do not have the managerial capacity to certify and monitor all for-profit providers, yet must at least stop the worst forms of medical malpractice. Spot checks and investigation of complaints
by local health authorities and debarring with widespread publicity of those guilty of serious malpractice could have significant public health impact with minimum managerial cost to government. In addition, wide publicity in the media and in public sector IEC to clients about the hazards of a few key malpractices could do much to police the for-profit sector through increased public awareness. One example would be increasing public awareness of the dangers of HIV infection from injections by providers who do not sterilize their syringes.

(ii) Certifying new providers. Certifying all current practitioners may be neither managerially nor politically feasible for many governments. But it would be more manageable to at least prevent the malpractice issue from worsening by licensing all new entrants to the for-profit market. As with training, this involves difficult decisions about what interventions providers of different types should be allowed to practice.

(iii) Certification of existing practitioners. In the long run, governments will no doubt license all for-profit practitioners, and there is likely to be pressure from medical associations to accelerate this process on ethical and other grounds. But this process, especially if premature, has costs as well as benefits. First, it absorbs scarce professional and managerial talent. Second, if certification outpaces training in the for-profit sector, it may squeeze out traditional providers and deprive local people of an important source of care. And if certification outpaces retraining programs in the public sector, great damage to public/private cooperation will be done if standards are enforced on for-profit providers which are higher than those for their public sector colleagues who are often as guilty of misprescription and malpractice. It therefore seems sensible to link certification of for-profit providers with their training, and to use the offer of certification as an incentive for them to be trained.

Information exchange. If the private sector (including for-profit providers and NGOs) is to share with the public sector the growing burden of dealing with curative and referral care, the private sector will need to be incorporated into the district management information system. This will involve three main areas of cooperation:

(i) Surveillance, service statistics and targeting. If in the future surveillance and targeting must be based on disaggregated local data (section III) and if the private sector is to play a growing role in PHC, then incorporating service statistics from the private sector into local prevalence estimates will be essential to get a true picture of disease priorities and intervention progress. Private providers will therefore need to be trained to collect service information in ways compatible with public sector needs. Financial incentives may be needed to persuade the private sector to cooperate in reporting.

(ii) Qualitative feedback. For the same reasons, the private sector will need to be incorporated into systems developed for getting feedback from clients about service quality, and for identifying and learning from 'best practice' service providers and avoidable deaths (section III).

(iii) Referral information. Complementary development of public and private sectors will involve frequent referral of patients from one sector to the other. The private
sector will need to be incorporated into the information system developed for management of referrals.

Developing regular information exchange of the above types between the public and private sectors will be a prerequisite for effective planning and quality improvement of PHC at the district level and below. This kind of exchange is only likely to emerge where there is a cooperative working relationship between the sectors, implying that a public sector intervention strategy which focuses more on support and training than on regulation has a greater chance of success.

Operations research. The previous sections focussed on improving for-profit service quality and developing a complementary relationship between public and private sector in curative care. But a cooperative for-profit sector probably can be involved in PHC in at least two areas beyond the traditional curative role. In these, operations research appears to be a high priority:

(i) Social marketing. To date, the potential of using the for-profit sector's access to the public for social marketing purposes has only begun to be exploited in family planning—and even there to far less than its potential extent in most countries. Other social marketing opportunities, for example for ORS, iron and vitamin A remain to be explored.

(ii) Involvement in preventive care. Although it is true that the private sector normally has little incentive to provide preventive care because it is not a felt need, it does not follow that the private sector has no such incentive or that none can be developed. Private practitioners do care about the welfare of their patients; and if trained to appreciate the importance of prevention can be expected to contribute to IEC. And to the extent that clients themselves become aware of the need for preventive care, for example from government-sponsored IEC sources, for-profit providers will have an increasing incentive to respond to clients' interest in promoting their families' health. This argues for operations research to determine the types of preventive care that the for-profit sector can most effectively provide, together with research on incentives which might encourage preventive work.
V. CONCLUSIONS

The strategic management approach argues that there is no 'right' way to go about management. Appropriate strategies have to be chosen for the particular task being undertaken, and the particular environment. As noted in the introduction to this paper, this limits the degree to which generalizable conclusions can be drawn in a conceptual framework paper which does not attempt specific country analysis. In particular, it limits the conclusions which can be drawn about community participation in PHC, because the potential for this more than anything else is dependent on the local cultural and political environment.

Nevertheless, there are important similarities as well as differences in the way the PHC task and the PHC environment are changing across countries, and which do permit some generalization. The key factors are the broader range and increasing complexity of the task; the growing diversity of the client environment; and the continuing scarcity of skills to manage an increasingly difficult job. In response to these changes, this paper has argued that countries passing rapidly through the health transition should be reshaping their vision of PHC in a number of ways.

- The standard package approach to service delivery which has dominated thinking for the past fifteen years should give way to a more varied local package approach responding to local disease priorities and clients' felt needs. Local surveillance, service statistic and targeting systems need to be reoriented to support this approach.

- Much has been done to satisfy latent demand for the easier PHC interventions. In future, the interventions will be harder, the client population more resistant to change, and continuity of care will have to replace the one-shot campaign. Professional IEC will be at a premium. Private sector skills should be called on to help develop locally appropriate IEC strategies, and district managers need to develop systems to find out what clients think and want, so they can adapt IEC to local needs.

- With easier, latent demand mostly satisfied, quality of service will determine whether health gains will continue at past rates. New quality control arrangements need to be developed at the local level, focussing on learning from the most effective local workers, and on investigating preventable deaths to determine how the local health system failed. Information about local health service performance and plans must regularly be passed to communities, and their feedback elicited.

- Locally varying interventions and the need for constant quality improvements demand a move away from standardized, infrequent, institution-based training toward district-managed training systems responding rapidly to the changing needs of the local area. Reorienting training, especially in-service training, is a fundamental need since training is the main channel for instituting the systemic changes that are required, in addition to increasing workers' technical competency.

- The growing overall burden of disease and the referral-intensive nature of the emerging chronic diseases imply a sharp rise in demand for referral care. Major investment will be needed everywhere in staff, equipment and training, and in many countries in additional facilities too. But it is not just a resource allocation issue: governments and donors face a
major new professional challenge in improving the management of referral institutions and referral processes

- The poor must not be squeezed out of the health system by the rising demands for treatment of chronic disease among the better off. The referral process must be designed to help the poor participate. And investment in referral systems should not crowd out investment to fill the many gaps in the existing PHC infrastructure—gaps which are concentrated in the urban slums and remoter rural areas where the poorest people live.

- PEM will remain a major burden among the poor, and requires intensive management. Targeting PEM is a good way of identifying the worst off, and hence concentrating staff resources on the unique burden of both communicable and chronic disease suffered by the very poor. This implies a conceptual shift away from the ‘standard program for all’ approach of the 1980s toward a ‘poverty-pocket project’ approach with special service infrastructure for those most in need.

- Governments should encourage a greater NGO role in PHC service delivery, but should not overestimate their potential or assume that they will lighten the managerial burden on government. Given the individual NGO’s limited scale of operation in service delivery, more could be done to leverage the impact of outstanding NGOs by contracting their services for training, consulting, experimentation and innovation.

- Advocacy of community participation and full scale decentralization as ideology needs hard-headed review in the light of the managerial demands of promoting them, and of how well they fit the local cultural and political environment. Time and talent diverted to ambitious schemes for community management may not yield the expected benefits. Steady application at developing local planning, targeting, quality control, IEC, training, information and quality control systems may be a better use of scarce managerial skills.

- The time has come to recognize the for-profit sector as an important provider of PHC. Governments can benefit from its help in responding to the rising demand for curative and referral care. And governments must fulfill their public health responsibility to reduce malpractice by training and regulating the for-profit sector.

Little work has so far been done on the implications of the health transition for the design and management of PHC programs. This vision of the issues and directions for PHC in the health transition is therefore an individual and tentative one. It will provoke some disagreement and some debate; that is one purpose of this paper. But the other purpose is to put forward not just an individual vision of where PHC should be heading, but to offer a conceptual framework for the strategic planning of PHC which may help governments decide where they want PHC to head. Debate about the specifics of the vision for PHC outlined above should therefore be separated from debate about the approach put forward for strategic planning.

On the methodological/conceptual framework front, the main conclusion of this paper is that the strategic planning model underlying PHC needs to change. The implicit model in the past has been a mechanical one, defining a national blueprint and a standard national strategy and infrastructure. But standard patterns will not meet the emerging challenges of PHC. Rapid change and emerging local variation require planning approaches which can embrace flexibility. The strategic management framework, which emphasizes the adaptation of management strategies to meet task and environmental differences, seems a useful planning tool for the future. So too, given the increasing managerial demands...
of PHC, does a conscious focus on what this paper calls organizational economics—the systematic incorporation of managerial as well as financial costs into decision-making about design and implementation strategies. If the methodological approach taken in this paper seems useful at the broad, inter-country level, the next step would be to apply it to test its relevance in some specific country cases.
THE CONTINUING IMPORTANCE OF GROWTH PROMOTION PLUS FOOD SUPPLEMENTATION PROGRAMS

1. Why should PEM continue to be a problem in countries passing rapidly through the health transition? For these are often countries where incomes are rising steadily and per capita food availability is adequate, suggesting that development will take care of the nutrition problem. But a chain of reasons, outlined below, suggests that development alone will not be enough, and that, of the various possible nutrition interventions, targeted growth promotion programs including supplementary feeding may emerge as the preferred option.

2. A growing body of evidence, much of it recently collated by the UN Sub-Committee on Nutrition (UN ACC/SCN, 1989), indicates that rising incomes do not lead soon or directly to satisfactory nutrition. Nutrition status improves only with very long lags even in families whose incomes have risen to the point where they can buy enough food. This is not only because the adverse consequences of malnutrition are not always understood by parents; but also because the existence of malnutrition within the family may not even be perceived, since it is not obvious to the eye until it has become severe. So either not enough food is bought for the family, or not enough goes to individuals within the family who are most at nutritional risk—typically very young children and pregnant women. This implies the need to growth monitor such at risk individuals in poverty populations. It also implies that growth monitoring and nutrition education are the only nutrition intervention capable of responding to this problem, since the issue is not one of household food security—the aim of most other food and nutrition policy interventions—but behavioral change.

3. To that argument on effectiveness grounds can be added an argument at the macro level on efficiency grounds. This is that the economic attractiveness to governments of other forms of nutrition intervention falls as development proceeds, and the attractiveness of targeted supplementation rises. When most families are poor and malnourished (i.e. there is a general household food security problem), food policy interventions focussing on crop and food pricing, food rationing and subsidies are an appropriate strategy. Growth monitoring and supplementation are not sufficient, when the problem is general household food insecurity; they are also an expensive means of targeting when the majority of a population is malnourished.

4. But as the majority of households become food secure, costly food policy interventions become steadily less efficient because of the difficulty of preventing leakages to the non-poor. Growth monitoring and targeted supplementation, on the other hand, become steadily more attractive, because they precisely target the malnourished, while the labor-intensive nature of the targeting process becomes financially and managerially more feasible as the poverty population diminishes. As cash-strapped mid-transition governments seek to rationalize food policy, they may therefore turn increasingly to targeted growth monitoring/supplementation programs.

5. Finally, nutritional improvement is a fluctuating and in particular a seasonally fluctuating process. Families which are getting less poor do not suddenly graduate to food secure status. They go through a lengthy period of transition, in which they have enough money for food on average, but have lean periods when malnutrition is a problem, usually during the growing season when food is scarce, prices are high, and laboring in the fields puts added demand on families' energy stores. Such seasonal descents in nutrition status are seldom tracked by surveys, which are usually no more than annual, and then often conducted in the dry season when people are best off. Yet they contribute to maternal depletion, low birth weights, seasonal peaks in infant and child mortality (especially as wet season diarrheas peak when children's resistance to infection may be lowest), and gradual stunting in young children. Malnutrition in
the poverty groups of mid-transition countries is therefore probably being significantly underestimated. Monthly growth monitoring is the only practical way to detect this form of malnutrition, and because of the transitory nature of the problem, temporary supplementation is the best way to respond to it.

6. For a combination of reasons therefore, mid-transition countries may wish to give increasing priority to this form of nutrition intervention for the poorer segments of their societies.
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