DISEASE CONTROL PRIORITIES PROJECT

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Primary Health Care

Key to Delivering Cost-Effective Interventions

Primary health care plays a central role in health care systems worldwide. It can offer families cost-effective services close to home, eliminating costly trips to specialists and hospitals. In developing countries, community health centers usually offer a broad range of services, including prenatal care, immunizations, treatment of childhood illnesses, treatment of malaria and other common infectious diseases, and other basic medical care.

All too often, however, the coverage and effectiveness of primary care services are limited by insufficient resources and staff, erratic drug supplies, and faulty equipment. Governments increasingly recognize that adequate delivery of primary care services is fundamental to the effective functioning of health systems, to keeping families healthy, and to achieving national health goals.

The Scope of Primary Health Care

Primary health care provides immediate and often continuing care for children, adults, or families. It is often their first experience with the formal health care system. In developing countries, public health posts and health centers often provide this care through nurses and mid-level health workers. Ideally, doctors are available for support, training, and referrals.

Primary health care serves several unique and essential purposes:

- These services are usually located in communities, making them the first point of contact with the health system for many individuals;
- The services can handle a wide range of basic health conditions;
- Patients are followed over time by the same primary care providers;
- The services are coordinated with higher levels of the health system that can provide more specialized care when needed; and
- These services can reach out to marginalized and underserved groups that might not otherwise seek or receive health care.

The Primary Health-Care Package

Since the mid-1990s, the international health community has agreed that a minimum package of essential health services should be available at the primary care level. These services typically include maternity care, family planning, childhood immunizations, treatment of common childhood illnesses, and prevention and treatment of malaria, tuberculosis, and other common illnesses. Prevention and treatment of HIV/AIDS is also increasingly becoming a part of primary care. The package of care adopted in any particular country is ideally based on cost-effectiveness analysis, the disease burden, and the socioeconomic and cultural context.

Key Interface With Communities

Primary care services also extend care to communities and vulnerable groups. Outreach services may focus on prevention, such as providing immunizations or vitamin A, or community-wide health promotion of child nutrition and other topics. Increasingly, the services are also tapped to provide home-based care for such chronic conditions as tuberculosis and HIV/AIDS.

Through referrals, primary care facilities also give people access to higher levels of care, particularly at the district level. Because primary health care acts as a link between community health care and more specialized care at other levels, it requires management teams that can plan and implement the most effective combinations of services that address local health conditions and risk factors.

The Effectiveness of Primary Care

In addition to offering cost-effective services (see Table 1), primary health care warrants a high priority in a country's health strategy because it:

- **Reduces the disease burden.** By effectively addressing the most common health needs of children, primary health care can bring the greatest benefits to the health of families and communities. A predominant share of the burden of disease is concentrated in children under age 15.
- **Produces economic savings.** By improving family health, primary care services can reduce the economic consequences of ill-health. Illnesses lower worker productivity and drain household assets.
- **Assures greater equity.** Compared with higher levels of care, primary care services are more geographically, financially, and culturally accessible to local communities, providing more personalized care to the poorest people who need it most.

Research has also shown that community-based health interventions reduce the use of emergency and other services in hospitals, improve the control of routine illnesses, and improve patients' perception of their own health. The continuity of care offered by primary care services is associated with improved patient satisfaction, reduced use of laboratory tests, increased patient compliance with treatment, and better recognition of patients' behavioral problems.

The Cost-Effectiveness of Primary Health Care

According to the landmark World Bank report, *Investing in Health*, published in 1993, most primary health care interventions are highly cost-effective, costing less than US$100 per disability-adjusted life year (DALY) gained (see Table 1). However, because reaching people in remote areas can be costlier, health planners must often make difficult choices between achieving universal coverage of a limited number of services and offering a wider range of services while leaving out some hard-to-reach populations.

Primary Care Improvements Needed

In much of the developing world, particularly in the poorest countries, only limited versions of the minimum package of care are available because of a lack of government commitment to primary care, inadequate financing, and shortages of skilled health personnel and other resources,

TABLE 1 Cost-Effectiveness of Selected Primary Care Services for Low- and Middle-Income Countries (2002 US Dollars)

Services	Cost per Disability-Adjusted Life Year (DALY) Gained	
	Low-income countries	Middle-income countries
Expanded program of immunization, including hepatitis B, and vitamin A supplementation	$15-22	$32-38
School health program	$25-32	$48-54
Tobacco and alcohol control program	$44-70	$57-70
Chemotherapy for tuberculosis	$4-6	$6-9
Integrated management of the sick child	$38-63	$63-127
Family planning	$25-38	$127-190
Sexually transmitted disease treatment	$1-4	$13-19
Prenatal and delivery care	$38-63	$76-139

Sources: J.L. Bobadilla et al, "Design, Content and Financing of an Essential National Package of Health Services," Bulletin of the World Health Organization 72 (4), 1994: 653-63; and World Bank, *Investing in Health*: World Development Report 1993 (New York: Oxford University Press, 1993).

Notes: Low-income countries are defined as those with per capita gross national income (GNI) in 2005 of less than US$875 per year. Middle income countries range from $876 to $10,725.

A DALY (disability-adjusted life year) is a unit for measuring the amount of health lost because of a particular disease or injury. This table shows the estimated cost of buying each additional disability-free year of life.

including drugs and medical supplies. The HIV/AIDS epidemic and the rise of cardiovascular diseases also have also increased demands for these services. Scaling up and improving the quality of primary care, therefore, is needed in most low- and middle-income countries. The success of these efforts will depend on several factors:

1. Developing a district health system. If decentralized health care is to be successful, management teams at the district level will need to play a greater role in health planning and tackle inefficiencies such as low worker skills and productivity and faulty equipment. The district hospital is a focal point for such coordination and management.

2. More financial resources. Recent estimates of the per capita annual cost of providing the minimum package of primary care are higher than estimates made in the 1990s because they take into account necessary management costs and improvements in quality of care (see Table 2). In poor countries, the additional funding will need to come from re-prioritized government budgets and donors. User fees should be applied with caution because they tend to suppress the use of services among the poorest groups.

3. Better training and support of health workers. The skills and competencies of primary care workers need to be improved, and problems of understaffing, low motivation, and lack of incentives and support need to be addressed.

4. Harnessing the private sector. Private-sector providers could provide services for a fee to some populations. Public-private partnerships (through government contracting, for example) can be instrumental in bringing services to poor communities.

5. Setting health priorities. The skills of local health managers need to be developed for decentralized health planning—in particular, setting priorities for community-oriented care based on the local disease burden.

Greater political commitment is crucial for scaling up and strengthening primary health care, making it central in the battle against devastating diseases and their causes. Efficient primary care can pave the way for major gains in health and development and provide good value for the investment.

For More Information

Tollman S., J. Doherty, and J.A. Mulligan, 2006. "General Primary Care." In Disease Control Priorities in Developing Countries, 2nd ed., ed. D.T. Jamison, J.G. Breman, A.R. Measham, G. Alleyne, M. Claeson, D.B. Evans, P. Jha, A. Mills, and P. Musgrove, 1193-1209. New York: Oxford University Press.

TABLE 2 Comparisons of Per Capita Annual Spending Required to Provide Minimum Packages of Primary Care (2002 US Dollars)

Report	Low-income countries	Middle-income countries
World Bank, *Investing in Health*, 1993	$15	$27
Commission on Macroeconomics and Health, 2002	Least developed: $40 Other low-income: $36	Lower-middle income: $39

Source: J. Doherty and R. Govender, "The Cost-Effectiveness of Primary Care Services in Developing Countries: A Review of International Literature." Background paper for the Disease Control Priorities Project, 2004.

Note: See definition of low- and middle-income countries in Table 1. Lower-middle income countries are defined as having an annual GNI per capita in 2005 of $876 to $3,465.