IS IT POSSIBLE TO SCALE-UP HEALTH SYSTEMS BASED ON PRIMARY HEALTH CARE?

Lessons learned scaling-up vertical programs

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Executive Summary

The need to strengthen health systems in the Americas is emerging as an important public policy issue. Weaknesses in health systems are increasingly perceived as "the major bottleneck to improving health outcomes".[1] At the same time, the renewal of *Primary Health Care* (PHC) is also gaining momentum in the regional debate, and PAHO/WHO is proposing that it becomes the basis for strengthening health systems. However, despite overall support for health systems strengthening, little attention has been paid to the major constraints faced by health systems, especially those related to weak national health governance and lack of sustainable results.

This paper introduces the concept of scaling-up in the context of health systems, presents the essential elements of the PHC-based health system proposed by PAHO/WHO, and provides an analysis of the international experience scaling-up vertical programs found in a limited literature review, as a first attempt, to answer the question of whether or not it is possible to scale-up a PHC-based system. The country experiences reviewed were selected on the basis of the number of PCH elements present in order to draw lessons; which could be useful to guide the process of scaling-up such a system.

It is based on two separate reviews of English language literature on "scaling-up" supplemented with an abundant bibliography of relevant sources for the issues discussed in the paper. The initial review attempted to locate the available literature on "scaling-up health systems" but had to be expanded due to limited results. The expanded search included articles, studies, and reports on the state-of-the-art for TB, malaria, and maternal and neonatal health; and an abstracted list of studies and reports on country experiences scaling-up priority health interventions.

A follow-up guided review was conducted after a working draft received internal comments. The purpose of the second review was twofold: (i) to screen the original references for information that could strengthen the argument for scaling-up health systems (given that most of the literature refers to scaling-up of specific interventions and not of the system as a whole); and (ii) to identify good practices in vertical programs (TB, malaria, other infectious diseases, and MCH) that relate to the elements of a PHC-based health system and are relevant to draw lessons that could be useful in scaling-up such a system.

The discussion on the merit of a PHC basis for health systems has only now begun and is not the central focus of this paper. The available evidence demonstrates some advantages for health systems that rely relatively more on PHC and general practice in comparison with systems more based on specialist care. However, a stronger evidence base is needed to make the evidence available universally applicable.[2]

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[1] "Taking Forward the Health Systems Agenda: Report of a Consultation on Developing the Health Systems Action Network", Partners for Health *Reformplus* Project, Draft for Comment, 8 February 2006.
[2] "What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services?, Health Evidence Network, WHO Europe, January 2004.

The debate surrounding the most effective practices for scaling-up vertical programs, in the context of health systems, is particularly important to the Region, given the various levels of development of its national health systems and the large amount of funding available for disease-specific interventions, since the financial resources from both global efforts and individual donors could provide an opportunity not only to combat selective diseases but also to address system-wide constraints to providing universal care.

The overall question of whether or not it is possible to scale-up health systems based on PHC posed in this paper cannot be answered conclusively based on the limited information reviewed. However, the experiences of scaling-up vertical programs suggest that partial approaches are not sufficient to affect system-wide changes and conversely; without systemic changes, partial approaches have only a limited success.

The major obstacles to scaling-up identified in the literature reviewed include: (i) limited human resources, (ii) weak national health governance, (iii) slow procurement systems, (iv) poor financial resources and management systems, (v) limited potential for sustainability, (vi) little or no health knowledge, and (vii) lack of coordination between government and private organizations. The country examples examined would have all benefited greatly from being implemented within a "functioning and responsive health system".

In addition, while vertical program good practices show that it is possible to scale-up a strategy that relies heavily on many of the PHC elements proposed; there is also information suggesting that vertical programs cannot be scaled-up based on these elements alone. Interventions at the local level, though focused on PHC elements, were often limited when expanded at the national level.

While it would be ideal to have the PHC elements in a national scale-up of health systems, the issues of financing, governmental policies, and administrative centralization come into play and often make it more difficult to achieve nationwide improvements within the health system. It is clear that national scaling-up efforts of any kind must first consider the country's current situation and the existing condition of its health system.

This leads to the conclusion that efforts to build PHC-based health systems will need a systemic approach and the interface of all health systems functions in order to be successful. Which in turn, points to the need for the *National Health Authority* (NHA) to exercise an effective *Steering Role* throughout the process and thus, to the critical importance of acquiring the capacity to do so.

In this regard, a closer examination of the degree of integration or verticality of national programs in the countries of the Region may be a useful starting point to identify health system challenges that need to be overcome in order to be successful with a scale-up strategy for PHC-based health systems.

Introduction

In the face of fierce competition for resources, ministers of health have to manage multiple objectives and competing demands. As they strive for greater efficiency and value for money, they have also to seek ways of achieving greater equity in access to, and outcomes of, health care. They are under pressure to ensure that services are effective, of assured quality, and safe, and that health providers are responsive to patients' needs[3].

Strengthening health systems in the countries of the Americas is thus emerging as an important policy issue. At the same time, the renewal of *Primary Health Care* (PHC) is also gaining momentum in the regional debate, and PAHO/WHO is proposing that it becomes the basis for strengthening health systems. Though this work is in the early stages of development, PAHO/WHO has already identified the essential elements required to build a PHC-based health system.

The focus on strengthening health systems has been triggered by the prevailing level of inequalities in health in the countries of the region but it is also partially the result of an unprecedented level of global funding for HIV/AIDS, TB, and malaria national programs. Despite abundant resources, these programs are running into scaling-up problems due to weak national health systems. Presently, many health systems in Latin America and the Caribbean are trying to cope with inadequate public health infrastructure; underutilized, yet available, health services; a regressive pattern of expenditures in health; extreme inequity in access to health services; and an array of deleterious health outcomes. The challenges of scaling-up vertical programs reveals and, in some cases, cause or exacerbate the weaknesses in already fragile national health systems.

Regional HIV/AIDS and TB programs are also facing their own challenges; such as long-term sustainability, once international funding stops, and responding effectively to emerging threats, such as multi-drug resistant TB and AIDS co-infection. The TB regional program, for instance, has begun to review its weaknesses and strengths, while systematically collecting information from national programs on their degree of integration or verticality; all of which may have important implications to the strengthening of national health systems.

These ongoing efforts provide a unique opportunity to review the successes from the vertical programs scale-up; to identify their potential contribution and ongoing trends that are relevant to the strengthening of health systems; and to explore strategies and actions that may be helpful for the countries to initiate the scaling-up of national health systems on the basis of the proposed PHC elements.

This paper introduces the concept of scaling-up in the context of health systems, presents the essential elements of the PHC-based health system proposed by PAHO/WHO, and provides an analysis of the international experience scaling-up vertical programs found in

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[3] "Health Systems", Report by the Secretariat, Executive Board 120th Session, WHO, 8 January 2007.

a limited literature review, as a first step to answer the question of whether or not it is possible to scale-up PHC-based health systems. The country experiences were selected on the basis of their inclusion of PCH elements; in order to draw lessons learned, which could be useful to guide the process of scaling-up such a system.

Methods

This paper is based on two separate reviews of English language literature on "scaling-up", conducted over a period of 18 months and supplemented by an abundant bibliography of materials from many sources, relevant to the issues discussed. The purpose of the initial review was to search for the available literature on "scaling-up health systems". This search produced only a handful of references, so the parameters were expanded to include all references to the terms "scale-up" or "scaling-up". The revised search produced numerous results, only some of which are included in this document due to their relevance.

Additionally, an effort was made to locate references to "scaling-up" in relation to TB and other infectious diseases, and Maternal and Child Health (MCH); the expanded search found a large number of articles as well (only a small group of which are included in this document). The findings included articles, studies, and reports on the state-of-the-art for TB, malaria, and maternal and neonatal health; and an abstracted list of studies and reports on country experiences scaling-up priority health interventions.

Sources included: technical journals from various fields (health, social sciences, and development), and designated websites (UN agencies, international financial institutions, universities, global health programs, international NGOs). The selection of references from the first review, organized by subject matter and number of findings, is presented in *Table 1*.

Table 1: Findings of the Initial Literature Review by Subject

Subject	Number of References
Scaling-up – General	26
Scaling-up – TB, malaria, and Other Infectious Diseases (HIV/AIDS, Dengue, etc.)	28
Scaling-up – Maternal and Child Health	15
Strengthening Health Systems	20
Primary Health Care	12
State-of-the-Art – TB, malaria, and Other Infectious Diseases	15
State-of-the-Art – Maternal and Child Health	8
Country Experiences – TB, malaria, and Other Infectious Diseases	11
Country Experiences – Maternal and Child Health	8

A follow-up, guided review was conducted after a working draft received internal comments and included more recent materials from the PAHO/WHO regional programs for communicable diseases and on the renewal of PHC; and the latest documents on health systems strengthening from the World Bank, USAID, WHO, and others.

The purpose of the second review was twofold: (i) to screen the original references for information that could strengthen the argument for scaling-up health systems (given that most of the literature refers to scaling-up of specific interventions and not of the system as a whole); and (ii) to identify country examples of good practices in vertical programs (TB, malaria, other infectious disease and MCH) as they relate to the elements of a PHC-based health system identified by PAHO/WHO. This resulted in a number of country examples of "good practice"; which, organized by country and subject, are presented in *Table 2*. The complete bibliography is available at the end of the document, following the technical annex.

Table 2: Findings of the Second Literature Review by Subject and Country Experience

Subject	Country	Number of Findings
Tuberculosis	Peru, Brazil, Nepal, Vietnam, Japan	5
Malaria	Ethiopia, Tanzania	2
Dengue	Cuba	1
Maternal and Child Health	Brazil, Peru, Cambodia, Regional IMCI Initiative, the Maternal and Neonatal Health Program	6
HIV/AIDS	Haiti, Partners in Health Program, Zambia, Malawi, WHO's 3x5 Initiative,	5

Lastly, in order to receive ample comments and feedback a working draft of this document was submitted to a broad consultation that included a peer review and discussions with national and international experts. Following the second literature review it was presented at a regional expert's meeting in Lima, Peru, on June 1, 2007. Simultaneously, an *e-Discussion Forum* took place during the month of June, 2007, where a group of international experts in health systems and services, international health planning, communicable diseases, among others, were invited to participate. The final version incorporates comments and feedback received.

A Health Systems perspective

In many countries, resources for health have increased in domestic budgets and, in lower and middle-income countries, those provided by external donors have risen in recent years as well. In the latter group of countries much of the additional investment has focused on particular diseases or health conditions, without due attention being paid to the means by which services are delivered and health outcomes achieved.[4]

In most countries of the Americas, the national constitution and legal framework provide a set of values, principles, and goals upon which their health systems are based; however, all health systems share several fundamental goals:[5]

- *Achieving equitable improvements in health*
- *Reducing exclusion, through more equitable access and use of services, irrespective of age, sex or income.*
- *Ensuring that services are effective, of adequate quality and safe, and that harmful practices are reduced.*
- *Being more responsive to users – for example by treating people with dignity, and ensuring confidentiality – irrespective of who they are.*
- *Reducing impoverishing health expenditures.*
- *Investing 'wisely' and ensuring resources are not wasted.*

These goals, in turn, are met through the exercise of health systems *functions* carried out by the institutions that constitute a health system. On the basis of the analysis of processes of health sector reform and reorganization undertaken in several countries of the Region, PAHO/WHO classifies these functions into three categories: (i) *Steering Role*, (ii) *Financing and Assurance*; and (iii) *Service Provision.*

- The ***Steering Role*** function refers to the exercise of public health policy responsibilities and competencies inherent to the NHA, within the framework of relations between government and society in a modern State, which cannot be delegated. It includes the public decisions and actions necessary to guarantee and satisfy, within the national development framework, the health needs and legitimate aspirations of the social actors The performance of this function entails different dimensions of responsibility for the public sector (see *Box 1*).

- The ***Financing and Assurance*** function includes two separate but related aspects.
  - o *Financing* is usually differentiated, into *public* financing (derived from taxes, contributions, and payment of service delivery charges), and *private* financing (derived from citizens, and delivered to insurance entities, private providers or public providers as payment for certain services). The *Financing* function includes determining the available financial resources in the health system or in each existing sub-system; collecting resources through taxes, social security

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[4] "Health Systems", Report by the Secretariat, Executive Board 120th Session, WHO, 8 January 2007.
[5] Everybody's Business, WHO's Health System Strengthening Strategy, Draft 26 Sept 2006 (this is an expanded version of the definition given in the World health report 2000).

contributions, co-payments or other financial resources; and distributing and allocating this resources through public expenditures to address equity issues in health systems.

- o *Assurance*, on the other hand, refers to a public guarantee of health services coverage and access, in the event of need, for the entire population. It implies a system-wide oversight of the supply of health services (both public and private); as well as risk management modalities to guarantee that the financial risk associated with health interventions is assumed by all members of society through a common fund or "pool" and not by each member individually; thus fulfilling the State's mandate of guaranteeing "Health for All". Central to this concept of assurance is the right to a guaranteed package of benefits and services on the basis of entitlements (economic, individual, and family-based); all in exchange for a financial contribution to the system (general taxes, contributions to social security, private insurance premiums or different types of mixed contribution schemes). Health assurance entails several aspects: (i) a legal framework, (ii) benefits, (iii) structure and management, (iv) population coverage, (v) a common fund or pooling, and (vi) provider payment mechanisms.

- The *Service Provision* function refers to a variety of services provided, either by health professionals or by those under their supervision, with the purpose of maintaining and/or recovering health. It includes all health care settings (hospitals, health centers, medical practices, intermediate care centers, schools, and households).

One of the most important roles of the State in health systems is played through the exercise of these functions, in particular the *Steering Role*, through the *National Health Authority* (NHA). The NHA is the custodian of public health and its primary objective is to protect and promote the health of its population. However, its structure and composition may vary between countries reflecting the prevailing political-administrative and institutional organization and the country's legal/regulatory framework.

Box 1: Dimensions of the Steering Role Function

Conduct/Lead	Refers to the capacity of the HA to formulate, organize and manage implementation of the National Health Policy, delineating viable objectives and feasible goals; and the capacity to prepare and implement strategic health plans.
Regulation	Is the design and fulfillment guarantee of the health regulatory framework that protects and promotes a population's health. Regulation and monitoring of its application are required to guarantee that the production and distribution of health resources, goods and services is based on the principles of solidarity and equity.
Essential Public Health Functions (EPHF)	These are the fundamental set of actions that should be performed in order to achieve public health's central objective of improving population health; there are 11 EPHF (please see *Box 2* for details).
Financing	Refers to guaranteeing, monitoring and adjusting the complementarities in the resources from different sources in order to ensure equitable access to health services for the population.
Assurance	Means access to a guaranteed package of health services for all inhabitants, or specific plans for certain population groups.
Harmonization of Service Provision	Refers to the capacity of the HA to promote complementarities among diverse service providers and user groups and to extend health care coverage equitably and efficiently.

Globally, weak health systems are increasingly perceived as "the major bottleneck to improving health outcomes".[6] A sample of Latin American countries indicates that, on average, the rate of access to health services is 34 percent for the poorest income quintile and 94 percent for the richest income quintile.[7] Lack of access to health services determines, in turn, the low degree of access to sexual and reproductive health services, to prenatal care, and to emergency and specialized obstetric care; thereby increasing the risk of maternal death for these groups. The leading cause of death for under-one year olds in the Region are conditions originating in the perinatal period; while influenza and pneumonia are among the top five.[8] Pregnancy, childbirth and the puerpium were ranked among the top five (and the leading cause of death in some countries) for women 25 to 44 years old.[9] Among the poorest populations are indigenous persons and persons of African descent who run the greatest risk of maternal mortality as a result of their lack of access to medical and health services due to their limited socio-economic status.[10]

Box 2: The Essential Public Health Functions (EPHF)

1: Monitoring, evaluation, and analysis of health status
2: Surveillance, research, and control of the risks and threats to public health
3. Health promotion
4. Social participation in health
5. Development of policies and institutional capacity for public health planning and management
6. Strengthening of public health regulation and enforcement capacity
7. Evaluation and promotion of equitable access to necessary health services
8. Human resources development and training in public health
9. Quality assurance in personal and population-based health services
10. Research in public health
11. Reduction of the impact of emergencies and disasters on health

Strengthening health systems in the Region has thus been brought to the fore with the intention of addressing the areas not touched by the regional *Health Sector Reform* (HSR) processes, such as: (i) the relevance of strengthening the steering role of the national health authority, (ii) increasing the number and competencies of human resources in health, and (iii) guaranteeing that the essentials public health functions are carried out.[11] With regards to the performance of the *Steering Role* in general, a review conducted for this paper of seven MCH case studies from across the Region: the *Universal Mother and Child Insurance* (Bolivia), the *Family Health Program* (Brazil), the *Mother and Child Health Protection Policy* (Chile), the *Free Maternity Law* (Ecuador), the *Mother and Child Voucher* (Honduras), the *PROGRESA program* (Mexico), and *the Integrated*

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[6] "Taking Forward the Health Systems Agenda: Report of a Consultation on Developing the Health Systems Action Network", Partners for Health *Reformplus* Project, Draft for Comment, 8 February 2006.
[7] "The Millennium Development Goals in Latin America and the Caribbean: Challenges, Actions, and Commitments", IDB, May 2004.
[8] Special Topic: The Ten Leading Causes of Death I the Countries of the Americas, Health Statistics for the Americas 2006 Edition, PAHO/WHO.
[9] PAHO/WHO *Op cit*.
[10] ECLAC, Achieving the Millennium Development Goals in Latin America and the Caribbean, June 2005 (Chapter VI).
[11] *Editorial: "Challenges to Scaling-Up Health Systems"* in Strengthening Health Systems and Reforms, PAHO/WHO – USAID Health Sector Reform Initiative, Issue #7, 2004.

Health Insurance (Peru), showed relatively wide spread capacity in the *Conduct/Lead* dimension; limited to non-existent capacity in most countries for *Regulation*; limited (though developing) capacity for *Financing and Assurance*; and very weak capacity overall for *Harmonization of Service Provision*.

With regards to performance of the EPHF dimension, in particular, the results obtained from measurements in 41 countries of the Americas show that in general, EPHFs that are part of the tradition of public health, perform the best (EPHFs 2 and 11). In contrast, functions that were more recently developed; such as *Quality Assurance* (EPHF 9) performed poorly. One noteworthy result is the poor performance seen in *Human Resources Development* (EPHF 8). This is of great concern, as this function is crucial to the strengthening of public health and of the NHA's s institutional capacity. The results of the review of the seven MCH case studies and the EPHF regional evaluation are summarized in *Box 3*.

Box 3: Main Findings of a Regional Review of Steering Role Capacity

Dimensions of the Steering Role	Review of Country Experience
Conduct/Lead	In all countries reviewed the national authorities were capable of setting health priorities on the basis of a situation analysis. In some cases these became national priorities, there was limited evaluation of results (Bolivia, Peru, and Mexico) but no performance evaluation of the system as a whole.
Regulation	All countries reviewed have fragmented systems—with multiple public and private institutions—and the health authority lacks resources to enforce regulation, and in some cases the legal framework to do so. Three countries (Chile, Brazil, and Mexico) have made progress in this regard but only for the public sector and not for the entire system; and none have capacity to enforce system-wide regulations.
Financing and Assurance	Most countries reviewed have shown the capacity to address health inequities stemming from financial barriers, including the reallocation of public expenditures for equity purposes. Most (Chile, Bolivia, Mexico, and Brazil) showed financial commitment for the attainment of their health goals. Some of the countries have a guaranteed package of health services or benefits (Bolivia, Peru, and Chile), as the basis for a national insurance scheme; but only one (Brazil), as the basis for universal coverage of health services. The four countries have defined geographic or population coverage, but only Chile has developed the capacity to monitor system-wide compliance.
Essential Public Health Functions	The best relative performance (under the 70%

(EPHF)	standard established for this evaluation) was observed for EPHF 11 and 2. EPHF 1, 7, 5, and 3 performed at mid-superior level; and EPHF 4 and 6 performed at sub-intermediate level. EPHF 9, 8, and 10 performed at a poor level.
Harmonization of Service Provision	Only one country reviewed (Bolivia) uses regional criteria in planning health services, and has mechanisms in place to guarantee quality standards of care.

The level of international support for health systems strengthening has also grown at a more rapid pace in recent years as academics and policymakers have become increasingly aware of the obstacles to scaling-up posed by weak health systems; which include: (i) limited human resources; (ii) weak national health governance; (iii) slow procurement systems; (iv) poor financial management systems; (v) limited prospects for sustainability; (vi) none or limited health information; and (vii) lack of coordination of ongoing initiatives.[12] Weak health systems have not only "hindered the rapid scale-up of known effective interventions"[13] but also threaten to severely "limit future improvements in health outcomes" .[14]

However, despite the overall support for health systems strengthening, little attention has been paid to the major constraints faced by weak health systems, especially those constraints related to lack of sustainability of results and weak national health governance. In some cases, the fact that vertical scaling-up efforts have not been accompanied by efforts to strengthen health systems has not only constrained the success of these efforts but have actually resulted in the weakening of health systems, e.g. the initiative to scale-up anti-retroviral treatment (ART) coverage in sub-Saharan Africa.[15] There is also concern that already weak systems may be further compromised by over-concentrating resources in specific programs, leaving many other areas further under-resourced.[16] One way to overcome these constraints and achieve long-term sustainability would be to integrate vertical programs good practices into health systems as part of a larger effort to strengthen health outcomes.

A comprehensive approach is needed not only to systematically analyze how vertical programs could contribute to scaling-up health systems based on PHC; but also, and perhaps even more importantly, to identify the actions that are required at systems level to ensure that they do. The advantages of a system-wide approach are that this strategy increases the range of options and tackles root causes; and that benefits accrue to several, not single priorities (i.e. efficiencies are possible).

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[12] Evans, Tim *et al*. "Making Health Systems Work." *Partners for Health Reform Plus*, 2005. (1)

[13] Evans, Tim, *Op cit*. (1)

[14] Pielemeier, Nancy *et al*. "Lessons from Health System Strengthening Can Lead to Rapid Scale-Up of HIV Programs," *Abt Associates*, 2005. (1)

[15] "The Challenge of TB and Malaria Control," DFID, 2005.

[16] Phyllida T. *et al*, "Overcoming Health-Systems Constraints to Achieve the Millennium Development Goals", The Lancet 2004, 364:900-06.

The essential elements of PHC

In recent years, as governments search for ways to improve the equity, efficiency, effectiveness, and responsiveness of their health systems there has been an acceptance of the important role of *Primary Health Care (*PHC) in helping to achieve these aims. However, there have been no systematic reviews on primary care versus specialist-oriented systems, nor has the case for primary health care been firmly established.[17]

International studies however show that the strength of a country's primary care system is associated with improved population health outcomes for all-cause mortality, all-cause premature mortality, and cause-specific premature mortality from major respiratory and cardiovascular diseases. This relationship is significant after controlling for determinants of population health at the macro-level (GDP per capita, total physicians per one thousand population, percentage of elderly) and micro-level (average number of ambulatory care visits, per capita income, alcohol and tobacco consumption).[18]

Furthermore, increased availability of PHC is associated with higher patient satisfaction and reduced aggregate health care spending. Studies from developed countries demonstrate that an orientation towards a specialist-based system enforces inequity in access. Health systems in low income countries with a strong primary care orientation tend to be more pro-poor, equitable and accessible. At the operational level, the majority of studies comparing services that could be delivered as either PHC or specialist services show that using primary care physicians reduces costs, and increases patient satisfaction with no adverse effects on quality of care or patient outcomes.[19]

The position of the Pan American Health Organization is that PHC renewal must be an integral part of health systems development and that basing health systems on PHC is the best approach for producing sustained and equitable improvement in the health of the peoples of the Americas. PAHO/WHO defines a PHC–based health system as: *An overarching approach to the organization and operation of health systems that makes the right to the highest attainable level of health its main goal while maximizing equity and solidarity.* Such a system is guided by the PHC principles of responsiveness to people's health needs, quality orientation, government accountability, social justice, sustainability, participation, and intersectoriality.[20]

A PHC–based health system is thus composed of a core set of functional and structural elements that guarantee universal coverage and access to services that are acceptable to the population and that are equity–enhancing. It provides comprehensive, integrated, and appropriate care over time, emphasizes health promotion and prevention, and assures first

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[17] "What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services? WHO Regional Office for Europe's Health Evidence Network (HEN), January 2004.
[18] WHO, *Op cit*.
[19] WHO, *Op cit*.
[20] "Renewing Primary Health Care in the Americas": A Position Paper of the Pan American Health Organization/World Health Organization, 2007.

contact care. Families and communities are its basis for planning and action. A PHC–based health system requires a sound legal, institutional, and organizational foundation as well as adequate and sustainable human, financial, and technological resources. It employs optimal organization and management practices at all levels to achieve quality, efficiency, and effectiveness and develops active mechanisms to maximize individual and collective participation in health. A PHC–based health system develops intersectorial actions to address determinants of health and equity.[21] *Box 4* presents the essential PHC elements and their definitions.

Box 4: The Essential PHC Elements

PHC Element	Definition
1. **Universal coverage and access**	Sufficient resources to cover the entire population, supporting equity and health promotion; removing access barriers (geographical, financial, socioeconomic, cultural, ethnic, gender, and age-based). Promoting the "ability to obtain needed, affordable, convenient, acceptable, and effective personal health services in a timely manner".
2. **Comprehensive, integrated, and continuing care**	Sufficient services for the entire population's needs, including promotion, prevention, diagnosis, curative, rehabilitative, etc. As well as coordination among all of these parts of the health system (referrals, etc.).
3. **Appropriate care**	Focus is on the whole person (both health and social needs appropriate to the community/culture/social context); not disease-oriented; evidence-based care.
4. **Pro-equity policies and programs**	Reduce negative effects of social inequalities on health, addressing the underlying factors.
5. **Emphasis on promotion and prevention**	Promoting health education, counseling, and policy-based approaches to improving people's lives.
6. **First contact**	Making the first point of entry into the health system easily accessible (PCP availability).
7. **Family and community based**	Population-based approaches, with family/community as the primary focus (not only individual needs).
8. **Sound policy, legal and institutional framework**	Identifies and empower the actions, actors, procedures, and legal and financial systems that required.
9. **Adequate and sustainable resources**	Facilities, personnel, equipment, supplies, pharmaceuticals, operating budgets, etc.; necessary to provide comprehensive, high-quality care.
10. **Appropriate human resources**	Properly trained and knowledgeable providers, community workers, support staff; skilled in

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[21] PAHO/WHO, *Op Cit.*

	their field and observant of ethical standards.
11. **Optimal organization and management**	Solid policy, legal, institutional framework; organizing the delivery of care to respond to citizens.
12. **Active participation mechanisms**	Strategies to include active participation mechanisms, empowering individuals/community, promoting accountability.
13. **Intersectorial actions**	Links between public/private organizations and NGO's within and outside the health sector (incorporating employment, labor, education, housing, food, environment, water/sanitation, social care, etc.).

From a health systems perspective the essential PHC elements can also be linked to the three health systems functions on the basis of their respective mandates, as *Table 3* illustrates. Chief among them is the *Steering role* of the National Health Authority and all aspects pertaining to the governance of health systems; which in most countries of the Region are the weakest, as discussed in the previous section. Governance is also of particular importance to attain the sound policy, legal, and institutional framework required for PCH to perform and be evaluated in a transparent fashion, subject to social control, and free from corruption highlighted in PAHO/WHO's position paper.[22]

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[22] PAHO/WHO, *Op Cit.*

Table 3: Suggested Links between Health System Functions and Essential PHC Elements

Essential PCH Elements	Health Systems Functions		
	Steering	Finance/Assurance	Service Provision
1. Universal coverage and access	√	√	√
2. Comprehensive, Integrated, and continuing care	√	√	√
3. Appropriate care			√
4. Pro-equity policies and programs	√	√	
5. Emphasis on promotion and prevention	√	√	√
6. Fist contact			√
7. Family and community-based	√	√	√
8. Sound policy, legal, and institutional framework	√		
9. Adequate and sustainable resources	√	√	
10. Appropriate human resources	√	√	√
11. Optimal organization and Management Practices	√	√	√
12. Active participation mechanisms	√		√
13. Intersectorial actions	√	√	√

What does it mean to scale-up PHC-based health systems?

It is increasingly recognized that "scaling-up" is not just about increasing public spending on health. Ministers of health are also looking for ways of doing more with existing resources. They are seeking innovative ways of harnessing the synergies of communities, non-governmental organizations and the private sector. They recognize that there is not guarantee that the poor will benefit from reforms unless these are carefully designed with this end in mind. Further, success will be limited unless the efforts of other sectors are brought to bear on achieving better health outcomes.[23]

While the health literature is characterized by the existence of multiple conceptual perspectives on scaling-up, the term is most commonly used to refer to the notion of expansion; in particular, to the expansion in the reach or number of activities of vertical programs or projects. The prevalence of the "vertical" approach[24] to scaling-up in the literature on health is a reflection of the fact that global health initiatives (e.g. *Roll Back Malaria*) generally focus their efforts on the expansion of vertical programs or projects in order to reach a larger population.[25]

The priority placed by most global health initiatives on the rapid scaling-up of vertical programs or projects, in turn, can be explained by the need to produce quick results in order to demonstrate progress towards the health-related MDGs. However, despite the emerging global consensus that stronger health systems are a prerequisite for achieving the health-related MDGs, most efforts to scale-up vertical programs or projects have taken place in the absence of parallel efforts to strengthen health systems.[26] In a few cases, efforts to scale-up specific vertical projects (e.g. the initiative to scale-up anti-retroviral treatment or ART coverage in sub-Saharan Africa) have actually resulted in the weakening of health systems.[27]

There is also emerging information that when vertical scaling-up efforts have not been accompanied by efforts to strengthen health systems, this has not only constrained the success of these efforts but has also resulted in the further weakening of health systems. For example, efforts to scale-up vertical HIV/AIDS projects in order to expand ART coverage have reportedly resulted, for some developing countries, in the distortion of policies, the diversion of scarce human resources, an increase in transaction costs, and the loss of coordination among service delivery structures.[28] A recent independent evaluation of the health system response to HIV in the Dominican Republic points to the need to

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[23] "Health Systems", Report by the Secretariat, Executive Board 120th Session, WHO, 8 January 2007.

[24] The vertical approach to scaling-up in health is defined in this document as the approach that is primarily focused on expanding the reach or number of activities of vertical programs or projects.

[25] Travis, Phyllida, *et al*. "Overcoming Health Systems Constraints to Achieving the Millennium Development Goals." *The Lancet,* 2004. (395)

[26] Travis, Phylida, *Op cit*.

[27] The Challenge of TB and Malaria Control." *UK Department for International Development*, 2005. (5).

[28] UK Department for International Development, *Op Cit*.

strengthen national processes that guarantee harmony and coherence between priorities and available resources; and for health system reforms based on cost-effectiveness and sustainability criteria.[29]

In this document, the application of the scaling-up concept, in the context of health systems, or "health systems approach to scaling-up" is defined as: *A comprehensive approach to health systems development which entails a broad, but integrated array of strategies aimed at improving the scope and performance of the main functions of the health system; namely (i) steering role; (ii) financing and assurance; and (iii) health services delivery.* The goal of the scaling-up health systems approach is thus to contribute to health improvement through increased access, coverage, quality of care, efficiency, and equity, and by strengthening the system as a whole. *Table 4* presents a comparison between these two approaches.

Table 4: The Scaling-up Vertical Approach vs. the Scaling-up Health Systems Approach

	Vertical Approach	*Health Systems Approach*
Definition	An approach that mainly seeks an expansion of coverage or in the number of vertical program/project activities.	An approach that focuses on the strengthening of health systems through strategies aimed at improving one or more of the health system functions; which in turn, leads to better health outcomes through improved access, coverage, equity, or efficiency.
Strengths	• Generates quick results to monitor attainment of the MDGs • This approach allows targeted interventions for a single disease or population	• Takes into account the challenges to scaling-up at health systems level and allows the development of interventions to overcome these obstacles • Integrates vertical program/project scaling-up within broader efforts to strengthen health systems
Weaknesses	• Insufficient attention to obstacles to scaling-up in weak health systems, which in turn limits the success of the interventions • May lead to the weakening of health systems; for instance, through diversion of critical human resources to the vertical program	• The application of a systemic approach requires more time as it implies taking into account the entire system and planning activities that will benefit the whole system • The results from system-wide interventions are not immediately perceived
Examples	The scaling-up of ART coverage in sub-Saharan Africa	The 6th Call for Proposals from the Global Fund, which require a health systems strengthening strategy

The foremost difference between the scaling-up vertical approach and the *scaling-up health systems approach* is that, whereas the vertical approach places primary emphasis on the urgent need to expand vertical programs and projects in order to meet specific targets such as the MDGs, the scaling-up health systems approach asserts that vertical

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[29] "VIH Noticias", Numero 13, Abril 2007 (in Spanish), OPS/OMS.

scaling-up efforts will achieve only limited success, unless they are integrated into broader efforts to strengthen health systems. Put differently, the scaling-up health systems approach argues that the long-term sustainability of vertical programs and projects (e.g. HIV/AIDS treatment programs) is dependent on the degree to which efforts to scale-up these programs and projects contribute to a broad horizontal build-up of the capacities of health systems.[30]

The application of a health systems approach to scaling-up requires prior analysis of the challenges to scaling-up posed by the national health system. On the basis of the analysis and a broad view of the system and its components appropriate measures can then be taken to ensure that the proposed strategy or intervention will contribute to the strengthening and not the weakening of the system. Efforts to scale-up activities can then be, integrated in, or, combined with, other efforts whose ultimate purpose would be to strengthen the entire system.

While the application of a scaling-up health systems approach can take different forms, in this document we concur with WHO's position that scaling-up of health systems should be guided by the principles of PHC and to this purpose we have employed, as an analytical tool, the elements proposed by PAHO/WHO to build a PHC-based health system. We have thus tried to ascertain the convergence or lack thereof of these elements with good practices from the international experience scaling-up vertical programs found in the literature reviewed, as a basis to explore the feasibility of scaling-up PHC-based health systems.

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[30] "The World Health Report 2003: Shaping the Future." *WHO*, 2003.

Lessons learned scaling-up vertical programs

Given the importance attributed to basing a health care system on the essential elements of PCH, the question remains as to whether or not it is possible to scale up health systems accordingly. In this regard, the lessons learned from the successes of scaling-up disease-specific vertical programs, featuring the essential elements of PHC, acquire particular relevance. The large amount of global funding available for vertical programs makes this question an extremely important one as well. If it is possible for vertical programs to strengthen health systems as a whole, the monetary resources available to the programs could serve as an invaluable opportunity for recipient countries to address weakness in national health systems.

Conversely, the recent increase in international financing available for vertical programs could have potentially negative effects on the health system as a whole, if these programs are not appropriately integrated into the basic structure of the national health systems. These independently-funded programs need to be closely coordinated with the national and local governments to help create a more cohesive plan of action that utilizes the funds most efficiently while promoting an overall strengthening of the health system. If donor and global health financial resources are not coordinated with the country's policies, the influx of funding for such programs can actually become a burden for the country.

In addition, a thorough understanding of vertical programs; including their structure, function, and implementation, would be essential in determining whether they could be used for scaling-up health systems based on PHC. Thus, for the purposes of analysis, scaling-up can be considered within the following four contexts:[31]

- *Quantitative Scale-Up*: increasing the number of clients reached by a program, usually immediately:
  - New target audience, geographic expansion, adoption of the program by another organization.
  - Requires Integration: these vertical programs have already shown their individual potential, but for the scale-up to be truly successful, they need to be integrated into an existing primary care structure.
  - The government needs to become involved in taking over such successful vertical programs, to increase impact and ensure sustainability.

- *Functional Scale-Up*: expanding the program breadth, number and types of technical areas included in the program:
  - To include a broad range of technical areas that will increase program impact.

- *Political Scale-Up*: ability to address national-level barriers to effective programs and HC services:

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[31] Adapted from Uvin, Peter and Miller, David. "Scaling-Up: Thinking Through the Issues." The World Hunger Program, 1994.

- o Resulting in the institutionalization of knowledge-based tools, products, strategies, and approaches to standardize and strengthen service delivery systems

- *Organizational Scale-Up:* improving ability to support the initiative in an effective/sustainable manner:
  - o Organize or increase funding base, build strategic alliances

While an analysis of scaling-up successes can offer good-practice recommendations, the country examples have also provided information of situations in which scaling-up is most difficult. Scaling-up has been shown to be unsuccessful in: (i) environments that lack strong political support, (ii) lack a technological aspect, and (iii) are unsustainable or process-intensive. Political support for scaling-up efforts relies on clear program documentation, since government officials tend to be more skeptical when "good practices" data are not available and documented. For example, the implementation of a farming technology scale-up program in Brazil had data readily available that outlined the clear cost-benefits of expanding the technology, which in turn made it easier to garner support from officials at the state level.[32] This case exemplifies the need for a system to process data so that success stories can be documented and disseminated to garner support.

The major obstacles identified in the literature reviewed of vertical approaches to scaling-up include: (i) limited human resources, (ii) weak national health governance, (iii) slow procurement systems, (iv) poor financial resources and management systems, (v) limited potential for sustainability, (vi) little or no health knowledge, and (viii) lack of coordination between government and private organizations. It is clear that, in order to best utilize the funding and resources available, vertical programs need to be implemented within a "functioning and responsive health system".

Amidst all of the constraints to scaling-up, alternatives to strengthening health systems have also been proposed. Arguments that endorse "scaling-down" as a better method highlight the need for programs to be responsive at the local level in order to achieve success. For example, in Malawi's STEPS program, the question has been raised of whether governments need to "scale-down" in order to provide the space needed for community-driven, decentralized programs to scale-up.[33] Under this argument, if governments adopt their ways of functioning to allow local communities and organizations to build their conceptual, operational, and institutional capacities, a balance can be established between governments and communities in which the government is more flexible and responsive to the local demand for health services.

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[32] The World Bank, *Scaling-Up the Impact of Good Practices in Rural Development* (Washington, D.C.: 2003).

[33] Gillespie, Stuart, *Scaling Up Community-Driven Development: A Synthesis of Experience,* International Food Policy Research Institute: Washington, D.C., 2004. pp. 14, 18.

Convergence with PHC elements

The successes scaling-up vertical programs found in the literature reviewed were carefully examined using as a guide the essential elements of PHC proposed by PAHO/WHO. The following section summarizes the findings and highlights national examples, when available.

The first two programs examined were Tuberculosis (TB) and malaria. The international situation surrounding the infection rates and treatment options for TB and malaria make these diseases a pressing concern for many health systems. Tuberculosis and malaria together kill over 3 million people each year, with that number steadily increasing for most regions in sub-Saharan Africa and South-East Asia.

In the Americas, TB control faces difficulties related to the population's access to a network of health services, the need for free care, speedy consultation and diagnosis, patient adherence to treatment, and access to family and community support, which are both frequently lacking due to the social stigma associated with the disease.[34] This situation is exacerbated by HIV/AIDS, which increases the risk of developing tuberculosis disease by 5 percent to 15 percent per year.[35] These diseases mostly affect the poor and disadvantaged, as financial and cultural access barriers to care play a significant role. They are also extremely burdensome for health systems, as an effective treatment program for TB requires close patient-monitoring during a 6-month span of daily treatments. There is also the problem of drug resistance to both diseases, which requires countries to procure more expensive drugs that are beyond their health system budgets.

Tuberculosis

Information-based treatment is available, such as the Directly Observed Treatment, Short-Course (DOTS) program for TB, which has had treatment successes of 88% compared with 51% for traditional treatment approaches[36]. The WHO has promoted DOTS as the internationally-recommended TB control strategy by expanding the DOTS framework and developing a plan for increasing coverage. In areas where the WHO strategy was implemented, 92% of the registered cases were assessed, compared with only 54% in the non-WHO areas, demonstrating the treatment's high rate of coverage. Through credible reporting and reliable treatment methods, many countries documented high TB case-detection rates, such as 81% for Botswana, 93% for Morocco, 94% for Peru, 80% for Tanzania, and 67% for Vietnam.[37]

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[34] Regional Strategy for the Control of Tuberculosis for 2005-2015, PAHO/WHO (CD46/18, Rev. 1).
[35] CD46/18, *Op cit*.
[36] Evans, Ann R. "Opportunities for TB Collaboration: Proceedings of a CORE Group Workshop," *The Child Survival Collaborations and Resources Group*. 2003 p. 9
[37] Raviglione MC et al. Assessment of worldwide tuberculosis control. *Lancet* 1997; 350:624-629.

However, while this "good practice" is well-known, its implementation into health systems has been slow and difficult without the necessary funding and basic health system infrastructure. Financial resources for this particular vertical program are increasing, but in order for such a disease-specific approach to have success it must take a broader, more horizontal PHC-based approach. For many countries trying to eradicate the disease, their failures "lie in the inadequacy of [their] underlying health care systems…[as] broader approaches are clearly needed which address the complex ways in which poverty and inadequate access breed resistance."[38] These countries need closer collaboration with international organizations such as the WHO to create correspondence between horizontal health sector programs and the heavily-funded vertical initiatives.

The success of vertical TB programs that are based on more horizontal PHC approaches provide strong information in support of scaling-up based on essential PHC elements. Convergence between the vertical DOTS program and PHC elements allowed for successful implementation in the countries of Peru, Brazil, Nepal, Vietnam, and Japan, cutting TB deaths in half during the 1990's. Common to each of these programs was careful monitoring of patient progress, a strong system for management and patient supervision, and ongoing patient support through follow-ups. These features correspond to the key PHC elements of *decentralized*, *universal provision of care* and *continuity of care,* as well as a *cost-effective* system of management and implementation.[39]

Within the context of expanding community-level coverage to as many patients as possible, these 5 examples of successful TB programs required a system-wide strengthening of the health workforce to make scaling-up possible. Analysis of data from Public-Private Mix for DOTS expansion (PPM) shows major gains of 25-30% in case notifications and high cure rates of 75-90%, demonstrating that "the *engagement of private health care providers* is paramount for TB control in a community."[40] Furthermore, to secure the appropriate human resources and improve coverage, it is usually necessary to first acquire adequate and sustainable medical resources. In the case of Central Haiti, a strong argument can be made in support of the positive effect that obtaining essential drugs or other forms of basic infrastructure has on the number of patients and/or health workers at that institution.[41] Providing adequate resources requires sustainable and cost-effective funding in order to purchase the essential medicines, build basic infrastructures, and encourage health professionals to work. All of these actions contribute to the overall expansion of coverage and improvement of patient attendance within the clinics.

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[38] "Global plagues and the Global Fund: Challenges in the fight against HIV, TB, and Malaria." Tan, et. al. *BMC International Health and Human Rights* 3:2 (TB Binder, Volume I, Section 1, p. 5/19)

[39] "Renewing Primary Health Care in the Americas": A Position Paper of the Pan American Health Organization/World Health Organization, 2007.

[40] *Progress Report on the Global Plan to Stop Tuberculosis.* WHO: Stop TB Partnership, 2004. p. 15

[41] Joia S. Mukherjee, "HIV-1 care in resource-poor settings: a view from Haiti," *Lancet.* 362(2003):994-995.

Malaria

Malaria, along with Tuberculosis, is also placing an enormous burden on public health infrastructures throughout the world. Malaria infects around 400 million people every year, causing anywhere between 1-3 million deaths annually. While there is currently no vaccine available for malaria, preventative drugs can be taken to reduce the risk of infection and antimalarial drugs can be taken to treat infections. However, these preventative and curative treatments are often too expensive for the weakened health systems and economies of developing countries. Resistance to antimalarial drugs is also becoming an issue within the countries. For these reasons, there have not been quite as many success stories cited in scaling-up malaria programs around the world. But among those vertical programs that *have* been able to reduce the disease's negative impacts on health and socioeconomic status, the "good practice" data have demonstrated that the incorporation of certain PHC-based system elements into the scale-up effort plays an integral part in its success.

A common theme among successful malaria scale-up programs is the use of a decentralized, *community-based information system,* e.g. the Tanzanian Essential Health Interventions Project (TEHIP); which uses Demographic Surveillance Systems (DSS) as a means to monitor health problems at the household level.[42] Being able to track and manage the data surrounding prevention and treatment practices at the local level is critical to monitor the progress of any program. It is also necessary to ensure that the current program is providing the most appropriate and cost-effective form of treatment. The following Information Systems are examples of successful data measurements that, when combined, produce an integrated data system to effectively measure disease impact and propose the best allocation of resources:[43]

- *Demographic Surveillance System (DSS):* DSS community sites monitor disease and deaths in large populations, longitudinally integrating census and survey data.
- *Demographic and Health Surveys (DHS):* These nationwide household surveys focus on reproductive and child health.
- *Multiple Indicator Cluster Surveys (MICS):* These surveys are related to prevention and treatment.
- *Malaria Indicator Survey (MIS):* Typically done at a national or subnational level, these sample sizes are usually smaller than DHS/MICS and taken at peak malaria transmission.

Employing these survey techniques allows for a vertical program scale-up to correspond with more PHC elements by helping to identify the best organizational and management practices, the most cost-effective and appropriate forms of care, and the human resources capacity needed to make the program successful. Coordination between these monitoring systems and the health programs can also result in a more effective mechanism for procuring the essential resources for care. Furthermore, successful antimalarial interventions require a sustained political commitment at the local, national, and

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[42] Teklehaimanot, Awash. "Coming to grips with malaria in the new millennium," *UN Millennium Project Task Force on HIV/AIDS, Malaria, TB and Access to Essential Medicines* (2005): 42.
[43] Teklehaimanot, Awash, *Op Cit* (74).

international levels. In general, fragmented scale-up efforts that lack certain PHC elements have little impact on improving health and extending coverage to all.

Dengue

Treatment for dengue relies heavily on supportive therapy, as dengue patients are required to maintain an intake of oral fluids or be supplemented with intravenous fluids to prevent dehydration. Since there is no commercially available vaccine for dengue, the primary means of prevention is eliminating or reducing the mosquito vector through nets, repellents, public spraying, etc. National Dengue Control programs are traditionally vertical in nature, but to be successful the countries must first have a sustained political and economic commitment to the surveillance and control programs. Furthermore, these control efforts require strong intersectoral partnerships and support networks. Since outbreaks tend to cycle every 3-5 years, many of the sporadic vertical programs aimed at treatment and prevention have failed.

From these failures, valuable lessons have been learned regarding the sorts of long-term, sustainable behavioral changes that must be achieved in order for any program to see success. The WHO, along with PAHO/WHO and the U.S. National Institutes of Health have made dengue vaccine development and control efforts a priority, and through their analysis of the current programs, have identified some key elements that need to be emphasized. The following aspects of dengue treatment correspond with many of the PHC elements, which must be implemented into the country's health system in order to create an effective Dengue Control Program:[44]

- *Comprehensiveness and Integrated Care:* Patient care must occur both within and outside of the formal health sector. This includes proper disease diagnosis, recognition, referral, and rehabilitative services. Information Systems for epidemiological and entomological surveillance are needed to facilitate the integration of care.
- *Adequate and Sustainable Resources:* Effective evaluation tools are needed, as well as a waste disposal system, clean water supply, and proper insecticide sprays.
- *Family and Community Orientation/Active Participation Mechanisms:* Community Participation and Social Communication must be emphasized to ensure accurate case reporting and adherence to prevention and treatment measures.
- *Emphasis on Promotion and Prevention:* Controlling the Mosquito Vector is a fundamental method for outbreak prevention. Formal health education is also needed at all levels.
- *Intersectoral actions*: Partnerships and networks are needed for both political and financial support.

The lessons learned from program successes and failures indicate that implementing a sustainable and cost-effective prevention method is crucial to success. Because these nation-wide programs are generally large in scale, sustainability becomes an issue in terms of long-term financing and community-level adherence to the course of action. When vector control programs are not sustained, the mosquito populations will quickly

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[44] PAHO/WHO's 128th Session of the Executive Committee: "Dengue Prevention and Control," June 2001, Washington, D.C.

rebound after program termination. Since most transmissions occur in and around the home, community-based approaches are found to be more successful and sustainable. However, these bottom-up approaches are typically an extremely slow process. Therefore, the ideal approach to achieve immediate success while maintaining program sustainability would combine top-down and bottom-up features.[45]

Maternal and Child Health

Around the world, and specifically within the LAC Region, improving MCH is closely linked with improving primary health services. Many of the determinants of maternal health, such as reproductive health and family planning, are associated with overall access to health services. For this reason, addressing MCH issues at the basic, primary care level has become a priority for many countries who are adopting this "rights-based approach" to safe motherhood. At the 1978 International Conference on Primary Health Care (sponsored by WHO/UNICEF), a commitment was made to making PHC universal by addressing the underlying social, economic, and political causes of ill-health as well as by addressing maternal and child health care.[46] The approach to promoting MCH at the local level through community-based research, public education campaigns, workshops, meetings, and media events was fairly successful in the realm of child health, but neglected other aspects of women's health such as safety during pregnancy and childbirth. As a whole, the approaches taken to improve MCH have shown that it is necessary to integrate family planning and reproductive health into MCH programs in order to provide all necessary services to the patient in one visit. This approach was referred to in many country cases as "scaling-up services in a seamless continuum of care."

The most significant finding from these programs is the message that vertical programs alone have not been successful in reducing maternal mortality. A single intervention that bypasses the health system infrastructure fails to address the broader range of interventions that are required to improve the health of mothers and children. The concept of integration is crucial to a successful MCH program, and programs should strive to incorporate the following:[47]

- *An integrated record systems at the district level and below*
- *An integrated service delivery system to direct client flow, referrals, etc.*
- *Defined "service quality standards" that can be operationalized through integrated service delivery guidelines/clinical protocols, and then disseminated to all reproductive health service providers*
- *An integrated supervision system to reinforce, monitor, and strengthen health care standards*
- *An incentive system to assist in managing health care personnel issues*

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[45] Gubler, Duane J. *Op cit.*
[46] AbourZahr, Carla. "Safe Motherhood: a brief history of the global movement 1947-2002." *British Medical Bulletin* 67 (2003): 13-25.
[47] "Integration of Family Planning/Reproductive Health and Maternal and Child Health Services: Missed Opportunities and Challenges." *Catalyst Consortium/TAHSEEN Project,* November 2003.

- *A staff training module of phased training and refresher courses to introduce new skills and maintain provider/supervisor interest in providing quality care*

This more all-inclusive approach corresponds with the following PHC elements:

- ***Comprehensive and Integrated Care:*** Health care should be provided for women throughout pregnancy and delivery through referral systems and service provider networks. In the event of complications, access to skilled medical care should be available.
- ***Appropriate Human Resources:*** Properly trained midwives, doctors, and paramedics are necessary to ensure that skilled personnel are available before, during, and after childbirth.
- ***Adequate and Sustainable Resources:*** The program should provide access to the necessary drugs, equipment, and supplies.
- ***Active Participation Mechanisms:*** The program should be part of a national and local development strategy that occurs in a supportive policy, regulatory, and legal environment.

Creating a functioning, primary care-based health system is the most important step to building the environment needed to improve essential obstetric care. *Safe Motherhood Initiatives* offer opportunities for countries to provide effective health care, but only if the initiative is linked to the mechanisms (financial and otherwise) that improve the quality of the health system as a whole. Vertical maternal health projects produce short-term gains that are easily visible, showing that improvements in MCH *are* possible. And the success of these extremely focused programs creates a positive atmosphere, which helps to improve service delivery on a system-wide scale. Another way in which the success of vertical programs can effect system-wide change is through encouraging continued funding from donors. At the same time, only taking a vertical approach presents the problem of sustainability, since the health personnel are focused on immediate performance and not on longer-term gains. As a result, "improvements resulting from vertical approaches may raise expectations while undermining the overall system."[48] The *GAVI Alliance* recognized that investing in immunization programs alone was not sufficient to increase and sustain immunization coverage or to contribute to the achievement of the MDGs and now offers funding (GAVI HSS) to strengthen the capacity of the health system to provide immunization and other health services.[49]

For these reasons, sector-wide approaches are thought to offer "better prospects for success than piecemeal projects financed separately…[as they have the] potential to eliminate the duplication of activities and the distortions created within health systems by vertically funded, single-issue programs."[50] And with the numerous health interventions involved in maternal and child health, it makes better sense for MCH programs to be financially and politically linked to a greater health sector development effort.

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[48] Goodburn, Elizabeth and Oona Campbell. "Reducing maternal mortality in the developing world: sector-wide approaches may be the key." *British Medical Journal* 322(2001): 917-920.
[49] GAVI Alliance, Guidelines on Country Proposals For Support to: Immunizations Services, Health Systems Strengthening and Injection Safety, 18 May 2006.
[50] Goodburn and Campbell, *Op cit.*

HIV/AIDS

For many developing countries around the world and specifically within the LAC Region, the high rates of HIV transmission are over-burdening the already weakened health system infrastructures. Providing fundamental health care is generally a challenge for these countries, so any sort of HIV/AIDS prevention and treatment program will likely have limited success. Although there is a lot of support and funding currently available from international organizations, if these groups cannot successfully integrate themselves into the existing health care infrastructure at the local level of primary care, they will not be able to successfully scale-up HIV/AIDS treatment. For example, The African Comprehensive HIV/AIDS Partnership (between the Government of Botswana, the Bill and Melinda Gates Foundation, and the Merck Company Foundation) has shown considerable support for anti-retroviral treatment (ARV) therapy programs, but the progress of such programs in Botswana has been slow due to the lack of "necessary infrastructure and human resource capacity to keep up with the tremendous demand for therapy." [51] In order for programs like these to be successful, the external organizations need to collaborate with the local governments in order to integrate their vertical programs into the primary care level of the existing health system.

Brazil has been able to implement a successful national HIV/AIDS program, balancing several elements of prevention and treatment, which has brought the epidemic under control in this country. The experience of Brazil has often been mentioned in the context of stronger calls to scale-up ARV as universal access to ARVs has been a major gain for AIDS patients in Brazil, and a showcase element of the Brazilian program. However, ARV provision is but one part of the Brazilian effort to deal with the epidemic, and the achievements need to be understood in the broader context of the economic, political, social and epidemiological characteristics of the epidemic and the varied responses to it. While capacity elements and enabling factors that appear to have been important in Brazil are not unique, they are also not universal. Other countries need to evaluate to what degree they might have sufficient conditions for implementing a program of the type and in a manner such as Brazil[52].

- ***Rapid and Concerted Response of Government and Civil Society.*** The initial failure of government authorities to respond to the epidemic was confronted by strong social mobilization. The response was concerted, through partnerships involving the public, non-governmental and private sectors. Strong leadership in civil society played an important part in consolidating the national response.
- ***A Comprehensive National Response***. Treatment, including ARVs, is just one part of a balanced program which has also placed strong emphasis on prevention and human rights protection.

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[51] "Scaling Up Health Investments in Developing Countries: Lessons About What Works," *Report on Wilton Park Conference WP751, West Sussex, UK,16-18 June 2004,* 7.

[52] Viewpoint: The Brazilian HIV AIDS "success story"- can others do it?, Tropical Medicine and International Health, Volume 9, No. 2, pp. 192-197, February 2004.

- ***High Resolution Capacity in the System.*** In relation to infrastructure, the Brazilian AIDS program has established a specific network of units (not necessarily by creating new physical units, but often by strengthening existing ones with additional resources) for the provision of care.
- ***Low Prevalence and Substantial Fiscal Capacity***. Brazil's 0.7% AIDS prevalence among the adult population (15–49 years) is low, hence the stresses put on the health system and public spending in combating the disease, including the provision of universal ARVs, have been correspondingly smaller and more manageable than in many other countries.

In the Dominican Republic, PAHO/WHO, UNICEF, ONU-SIDA, and other agencies conducted an independent evaluation of the health system response to the HIV epidemic. Using quantitative and qualitative methodology, the evaluation team assessed the effectiveness of resources invested in the attainment of national health goals, highlighted the gaps, and identified the obstacles to the effective implementation of national policy throughout the health system. Their findings show that despite the high level of investment, progress made in the implementation of the various HIV/AIDS projects is not as expected in light of available technologies and protocols, and that significant gaps in coverage for prevention and treatment still persist. These findings are partially due to a low level of performance by the national health system and significant weaknesses in the Steering Role capacity of the NHA, which compromises its ability to carry out this function.[53]

The HIV/AIDS epidemic has brought into focus the major weaknesses that exist in most health systems. This is due in part to the comprehensive response that the virus requires from all sections of the health system. If all areas do not collaborate properly, or if there is any underdeveloped section, the HIV/AIDS vertical programs will not be able to rapidly expand to increase coverage. By highlighting the weaker areas of health system infrastructure, the response to HIV/AIDS can actually work towards strengthening these limitations. Health systems that respond inadequately are generally those that lack the basic fundamentals of a primary care-based health infrastructure. By incorporating these primary care standards into the vertical HIV/AIDS programs, not only will access to necessary ARV therapy increase, but the health system as a whole can be strengthened in the process of this scale-up.

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[53] "VIH Noticias", Numero 13, Abril 2007 (in Spanish), OPS/OMS.

Implications for Policy and Practice

The discussion on the merit of a PHC basis for health systems has only now begun and is not the central focus of this paper. The available evidence demonstrates some advantages for health systems that rely relatively more on PHC and general practice in comparison with systems more based on specialist care in terms of better population health outcomes, improved equity, access and continuity and lower cost. However, a stronger evidence base is needed to make the evidence available universally applicable.[54]

The debate surrounding the most effective practices for scaling-up vertical programs, in the context of health systems, is particularly important to the Region, given the various levels of development of its national health systems and the large amount of funding available for disease-specific interventions, since the financial resources from both global efforts and individual donors could provide an opportunity not only to combat selective diseases but also to address system-wide constraints to providing universal care.

The overall question of whether or not it is possible to scale-up health systems based on PHC, posed in this paper, cannot be answered conclusively based on the limited information reviewed. However, the experiences of scaling-up vertical programs examined do suggest, that partial approaches are insufficient to affect system-wide changes and conversely; without systemic changes, partial approaches have only a limited success.

Moreover, the review of vertical program "good practices" conducted for this paper shows that efforts to scale-up strategies that contain many of the PHC elements proposed have been tried with various degrees of success. Though, there is also indication that a system-wide scale-up could not be based on PHC elements alone. Interventions at the local level, although focused on PHC elements, have been often limited when expanded at the national level.

While the PHC elements would be ideal to have in a national scale-up of health systems, the issues of financing, governmental policies, and administrative centralization come into play and often makes it more difficult to achieve nationwide improvements within the health system. It is clear that national scaling-up efforts of any kind must first consider the country's current situation and the existing condition of its health system.

Specifically, scaling-up PHC-based health systems may require a comprehensive plan of action and the successes from vertical program scale-up efforts can offer some insight into effectively implementing system-wide change. For instance, to maximize effectiveness, a strategic approach will need to identify the country's specific health needs and link these priorities to appropriate interventions at a decentralized level.

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[54] "What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services?, Health Evidence Network, WHO Europe, January 2004.

The country examples reviewed also show that most governmental bodies and organizations found it difficult to estimate the potential costs of scaling-up when planning to provide the most cost-effective and financially sustainable intervention offered by vertical programs. There is a significant lack of cost-benefit data analysis, and the little data that exists is not always applicable across cultures and geographic regions; as important factors that play into the cost of a program include the type of intervention used and specific climate (physical, social, economical, etc.) into which it is introduced.

The issue of efficiency is also of utmost importance. This includes assessing opportunities for self-financing, public financing, and private financing so that programs can maintain their achievements in the long run. The vertical "good practices" suggest that successful scale-ups are those with the most simple, low-cost, and transparent interventions. Success has also been documented in cases with a mix of public and private provisions of care. This offers another option for increasing cost-effectiveness, as contracting out health services to private sector providers has shown more successes than failures in terms of expanding access and utilization of services.[55] However, efficient subcontracting thrives on effective control and regulation, which is unfulfilled in most lower and middle-income countries.[56]

The existing health system infrastructure also plays a large role in determining whether an intervention will be cost-effective. For example, if a functioning management and organizational structure exists, the intervention will not have to spend as much money on hiring personnel, promoting worker training, and on facilitating communication between the health system's key players. Other factors that make it difficult to assess the costs of scaling-up are differences in unit costs between rural and urban communities, and the typically high administrative costs required to start a program.

Given the diverse level of development in regional health systems, more analysis is needed at country level to identify specific challenges posed by a national health system to any scale-up strategy. Efforts to build PHC-based systems throughout the region will require a systemic approach and the interface of all health systems functions. For instance, the NHA may need to exercise an effective *Steering Role* throughout the process; which in turn, points to the critical importance of acquiring the capacity to do so.

In this regard, a closer examination of the degree of integration or verticality of national programs in the countries of the Region, along the lines of the review conducted for this paper, may be a useful starting point to identify health system challenges that need to be overcome in order to be successful with a scale-up strategy for PHC-based health systems or any other type of scale-up.

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[55] Oliveira-Cruz V., et al., "Approaches to Overcoming Constraints to Effective Health Service Delivery: A Review of the Evidence," *Journal of International Development.* 15(2003): 52-53.

[56] Unger Jean-Pierre et al, "Disintegrated care: the Achilles heel of international health policies in low and middle-income countries", International Journal of Integrated Care – Vol. 6, 18 September 2006.

Annex 1: Country examples from the literature reviewed

Tuberculosis

__Peru__[57]

The Revised National Tuberculosis Program (RNTP) in Peru was extremely successful in 1998, with 100% of reported cases being treated by DOTS and a 90% cure rate. [58] This program implemented the short-course therapy through a national prioritization of TB that allowed for TB interventions from the central/regional health units to be linked down to the primary health care interventions being done by local community clinics. The daily treatment monitoring at the PHC-level was essential to the program's success, incorporating the following elements:

- *Universal Coverage and Access:* All components of the treatment are free and available in nearly all health facilities.
- *Pro-Equity Policies and Programs:* The program also included transportation costs to the health facilities, which eliminated important access barriers (both financial and geographical) for many patients.
- *Emphasis on Promotion and Prevention, through Appropriate Human Resources:* Health Promotion agents were established in rural areas to administer and follow-up TB treatment in low-access areas.
- *Active Participation Mechanisms:* As part of the national development strategy, Peru's program showed a sustained political and financial commitment by the government at all levels.
- *Integrated Care:* Peru's program had a high level of coordination between different components of the health service.
- *Optimal Management Practices:* The RNTP showed continuous improvement of program quality through an effective system of information, training, monitoring, and evaluation.

As a result, Peru's RNTP program led to an annual decline in TB incidence of approximately 6%. Due to improved case detection and treatment monitoring, Peru's RNTP prevented approximately 158,000 pulmonary cases and 91,000 deaths (smear-positive cases) between 1991 and 2000. If the program's success continues at this rate, TB incidence will be halved between 2000 and 2012.

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[57] Suarez PG, Watt CJ, Alarcón E, et al. The dynamics of tuberculosis in response to 10 years of intensive control effort in Peru. *Journal of Infectious Disease* 2001; 184: 473-478.

[58] Suarez PG, Watt CJ, Alarcón E, et al, *Op cit.*

Brazil[59]

Another successful National TB Control Program is the Brazilian Partnership Against Tuberculosis, which was originally established in the 1950's as a specialized vertical program but brought back to the national agenda in 2003 to "decentralize diagnosis and treatment to all primary care units…[and] implement DOTS in at least 50% of primary care units."[60] The decentralization and primary care-based focus of this program were crucial to its success, along with the following PHC elements:

- *Adequate and Sustainable Resources:* The program secured an operating budget to provide appropriate care through national public funds, USAID support, and NGO funding.
- *Emphasis on Promotion and Prevention:* Through numerous TV spots and a national media campaign featuring celebrities, the program employed promotion strategies that emphasized social mobilization and awareness.
- *Intersectoral Actions:* Public hearings and workshops were held for the Ministry of Health to work with NGO's, churches, and other organizations.
- *Appropriate Human Resources:* 30 public health professionals were hired to reinforce TB program coordination between the national and local levels.

These important program features resulted in a TB detection rate of over 70% and a cure rate of 73% for Brazil.

Nepal[61]

The success of Nepal's National Tuberculosis Center in Dirgh Singh Bam demonstrates the importance of family and community orientation in efforts to increase case-detection and treatment success. In order for the program to overcome Nepal's environmental and socio-cultural constraints (such as poverty, migration, geography, and climate), active community participation was promoted through the formation of DOTS Committees. Each DOTS treatment center formed a committee consisting of social workers, political leaders, health providers, journalists, and teachers. The role of these decentralized committees was to identify the local problems, increase public awareness about DOTS and TB, and provide DOTS patients with treatment observers that will ensure patient participation. In addition, these committees supported the formation of intersectoral partnerships by fostering cooperation between the health centers, its workers, NGO's, and government leaders. Overall, the decentralized orientation of the program facilitated active participation mechanisms and intersectoral actions, which increased TB case

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[59] Brazilian Partnership Against Tuberculosis. *Stop TB Partnership.*
<www.stoptb.org/national_partnerships/assets/documents/Stop%20TB%20Brazil%20Factsheet%202005.pdf>.
[60] Brazilian Partnership Against Tuberculosis, *Op cit*.
[61] Suchi M, Tateno S. Tuberculosis in Asia. *Kekkaku* 2002; 77:693–697. (article originally in Japanese, abstract taken from website
<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12440145&dopt=Abstract>).

findings and treatment success. As a result, Nepal now sees a case-finding rate of 69%, and nearly 95% of diagnosed TB cases are being treated with DOTS in the country.

Vietnam[62]

The effort to reach the global target for TB control in Vietnam began in 1957, and underwent reorganization in 1986 with the opening of the Pham Ngoc Thach Tuberculosis and Lung Disease Center in Ho Chi Minh City, Vietnam. Through this New National TB Control Program, the WHO-endorsed practices of case-finding, chemotherapy, and management were employed. Since 1989, the DOTS strategy has been introduced within districts and communes of every province. This decentralization was achieved through optimal organization at the national level, with the establishment of the National and Provincial TB Control Steering Committees to provide incentives for detected cases.   This decentralized organizational structure gave the government the ability to strengthen the human resources capacity of managerial and supervisory staff, which promoted intersectoral cooperation among all TB-related parties. For example, effective partnerships were formed at the international and local levels, while a high political commitment was maintained by both national and provincial governments. The active participation from all levels resulted in a DOTS coverage rate of 99.8% for the population in 2000. The TB cure rate rose from 85.3% in 1989 to 90.3% in 1999.

Japan[63]

Japan's integration-based scale-up of TB treatment has had the greatest success of national scale-up programs. Through the motto "Think PHC, Do TB", comprehensive actions were taken at the PHC level to control TB, and the Japanese government rigorously implemented these actions by establishing a network of TB centers and hospitals.   Japan's scale-up successfully integrated TB into the primary health care system, demonstrating correspondence between the disease-specific program and the following PHC elements:

- *Universal Coverage and Access/Pro-Equity Policies:* The government aimed to cover entire cost of care for infectious patients (with 50% of the financing coming from government subsidies, and 50% coming from insurance). Government subsidies decreased the out-of-pocket payments to less than 10% in 1963. Each TB diagnosis was accompanied by a notification and request for government subsidies. A TB Advisory Committee would then assure appropriate use of the funding, providing an incentive for doctors to provide everyone with treatment.
- *Adequate and Sustainable Resources:* The Japanese Government capitalized on the existing network of general physicians as a base for care, and was also able to increase the number of TB beds in hospitals.
- *Optimal Organization and Management Practices:* Through a regulatory framework outlined by the TB Control Law of 1951, the provision of governmental subsidies was

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[62] Suchi M, Tateno S. *Op cit* (abstract)
[63] Akihiro, Seita, "Think PHC, Do TB": Integration-based scale up of tuberculosis control in Japan. <http://www.hsph.harvard.edu/takemi/RP217.htm>.

explicitly organized. In addition, large Japanese companies established a network of TB care for their employees.

- *Emphasis on Promotion and Prevention:* NGO's and public health nurses promoted behavioral changes, mass health screenings, and health education to go beyond the clinical aspects of TB diagnosis and treatment.

After this program began to take action in the 1950's, TB mortality decreased by 50% in 1955, by 80% in 1960, and by 90% in 1970. These data provide strong information for scaling-up health systems based on PHC elements, but the context in which Japan's success was achieved must also be taken into account. This TB program scale-up's success was largely due to the country's strong economic, social, and medical infrastructures. While these factors allowed for an extremely organized, cost-effective, and nearly universal scale-up to occur, many other countries do not share in Japan's stability. Therefore, addressing TB as a national disease may not be as easy in LAC Region, as these developing countries typically lack basic infrastructures and political stability.

Malaria

The following examples from Ethiopia and Tanzania highlight the importance of creating a decentralized, community-oriented program with the appropriate human resources and information systems to provide cost-effective, universal coverage.

Ethiopia[64]

Recognizing the need to address malaria for the new millennium, the Tigray region of Ethiopia attempted a system-wide approach in the early 1990's to better manage the disease. The program followed a decentralized and more family-based approach by managing cases at home, which shifted diagnosis and treatment to the community health workers. In order to maximize coverage at the community level, the development of appropriate Human Resources was emphasized through the central management of HR development that included the training and mobilization of workers. As a result, a network of nearly 700 volunteer health workers was responsible for social mobilization, clinical diagnosis, and treatment at the village level. The organizational structure of the program also allowed for intersectoral actions between HIV/AIDS, TB, and Maternal and Child Health programs, all of which were centered at the community level to reach the largest number of patients possible. Through these efforts, the Tigray region saw a 40% reduction in the overall under-five mortality rate between 1994 and 1996.

Tanzania[65]

The Tanzanian Essential Health Interventions Project (TEHIP), started in 1997 as an integrated research and development project, has tackled the issue of malaria using a

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[64] Teklehaimanot, Awash. "Coming to grips with malaria in the new millennium," *UN Millennium Project Task Force on HIV/AIDS, Malaria, TB and Access to Essential Medicines* (2005): 42.
[65] Teklehaimanot, Awash, *Op cit* 47-48.

decentralized (district-level), knowledge-based approach to treating the disease. Through the use of Demographic Surveillance Systems (DSS) as a means to monitor health problems at the household level, the project was able to incorporate important information into its health planning at the district level, which provided the basis for an appropriate allocation of funding, materials, and human resources. The success of this project lends strong support to the argument that having the available funding is useless if the health system lacks the proper infrastructure to spend it. Therefore, through the use of the appropriate community-level information systems, the existing district-level health budgets were better allocated to those areas in need. Overall, the TEHIP suggests that system-wide interventions and overall health systems strengthening are better at delivery than isolated, vertical programs. Through the use of such systemic approaches, the TEHIP significantly reduced the under-five mortality probability by 38% for the Morogoro District and by 55% for the Rufiji District between 1998 and 2003.

The successes seen in Ethiopia and Tanzania are similar to the scaling-up trends seen in the successful TB programs, but they also demonstrate some new intervention strategies that correspond to other key PHC elements. At the forefront of these "strategies" is the use of effective information monitoring systems to track program activities and evaluate the performance of evidence-based interventions. And like the strategies seen in successful TB programs, the antimalarial "good practices" were ones that occurred at the community level through active community participation and appropriate human resources. Knowing this, the challenge of expanding antimalarial treatment coverage now lies in first strengthening the health system infrastructure and the information system capacities in order to effectively deliver the necessary interventions.

Dengue

Cuba[66]

Cuba provides an interesting example of vertical structuring through its national program for the eradication of *Aedes aegypti* and its Integrated Surveillance System for Dengue Prevention in 1997. While these interventions appear to have a sustainable and appropriate infrastructure that incorporates various PHC elements, the frequency of dengue outbreaks has actually increased with time (especially since 2000). This example actually provides information *against* the argument that scaling-up programs based on PHC elements is the optimal approach. Cuba's program attempted to prevent dengue transmission at the local level by employing an integrated and participative strategy for better health management. It included the following elements of PHC:

- *Emphasis on Promotion and Prevention:* The program was supported at all levels by authorities, organizations, and the community.
- *Integrated Care:* Through the *Integrated Surveillance System for Dengue Prevention*, the following subsystems operated together to reach the long-term goal of social transformation-

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[66] Díaz, Cristina, et al. "An ecosystem approach to human health for the prevention of Dengue at local level," Global Forum for Health Research, Forum 8. Mexico City: November 2004.

- *Environmental Surveillance Subsystem*: Risk identification and stratification
- *Entomological Surveillance Subsystem*: Active search of infestation risk
- *Clinical and Epidemiological Subsystem*: Supported by laboratory tests, analyses individuals at risk, probable cases, and serological surveillance
- **Active Participation Mechanisms:** The program's Social Participation Model promotes and develops environmental health while contributing to a healthy ecosystem. This model was based on principles of participative management and health co-management.
- **Family and Community Orientation:** A Neighbor Group identified problems and access barriers, and aided in executing the community-level action plan. Health Councils served to integrate the program at the local level.
- **Universal Coverage and Access:** The Cuban government assumes full fiscal and administrative responsibility for the health care needs of all its citizens, providing free preventive, curative, and rehabilitation services.
- **Intersectoral Actions:** Cuba's health situation was discussed with NGO's, the government, and other organizations involved within the community. These discussions and analyses complemented community surveillance reports in recommending a plan of action.

Maternal and Child Health

Brazil[67]

The Brazilian Health Agents Program, or *Agentes de Saúde,* was originally implemented in 1987 in the city of Fortaleza to provide employment to those affected by a drought during that year. The government decided to restore and restructure the program through state treasury resources, and has employed nearly 7,300 health agents since 1994 in an effort to help communities promote and improve their own health care. Focusing mainly in the city of Ceará, this intervention highlights the importance of program decentralization, sustainability, and cost-effectiveness to strengthening a PHC-based health system infrastructure through the following elements:

- **Optimal Organization and Management:** Health Agents is an equity-oriented, primary care program that combines administrative decentralization and financial centralization. Under this program, local supervision and central management depended on nurses rather than physicians at public clinics. Agents are assigned to well-defined geographical territories and work within the areas they live.
- **Intersectoral Actions:** Shared decision-making occurs with NGO's through new municipal health councils. Brazil's State Health Secretariat and the United Nation's Children's Fund worked together to develop the maternal and child health priorities.
- **Pro-Equity Policies and Programs:** Public attorneys and local government push for child protection and education laws.
- **Appropriate Human Resources:** Beginning in January 1989, about 1500 rural health assistants were recruited to become part of the new agents system (~ 1 agent per each 75 homes in rural areas, and each 225 homes in urban areas). By 1998, the program employed 8,698 agents and 225 nurse-supervisors (RN's).

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[67] Svitone, Ennio Cufino et al. "Primary health care lessons from the Northeast of Brazil: the *Agentes de Saúde* Program." *Revista Panamericana de Salud Pública* 7 (2000).

- *Universal Coverage and Access:* The program sought universal coverage for a small number of priority interventions. The majority (around 90%) of a health agent's time is spent on these interventions- exclusive breast-feeding, monthly weighing/nutritional counseling for children, child vaccination referrals, oral rehydration for kids with diarrhea, treatment of minor wounds, and screening for TB, diabetes, and high blood pressure.
- *Emphasis on Promotion and Prevention:* Health education and counseling at the individual level were supported through population-based health promotion strategies.
- *Adequate and Sustainable Resources:* Funding for the agents' salaries came directly from state government tax revenues. By obtaining the funding from outside the local communities, the program's financial stability was insulated from local politics. The program was generally low-cost, as it provided few medicines and employed no physicians. While the agent's salaries were relatively high for the community, they were modest in comparison with physician-based services.

As a result of this human resources scale-up effort, maternal and child health indicators dramatically improved between 1987 and 1994. There was an overall rise in immunization, as the program's population-based monitoring system made it possible to identify areas with low immunization coverage. The increase in capable health workers reduced access barriers to medical resources and provided critical care in a timely fashion. Furthermore, national infant mortality rates declined 10% from 1987-1990, from 52 deaths per 1,000 births to 47 deaths per 1,000 births. Community-implemented prenatal/postnatal counseling in 1991 led to a 35-50% rise in breast-feeding rates. And in response to the program's wide-reaching successes, there was an increase in the demand for nurses that led to an expansion of the state's university-level nurse training programs. In addition, the success of this program paved the way for a nation-wide effort through the Family Health Program which now covers 80 percent of Brazilians.

Peru[68]

Peru's national scale-up of the Integrated Management of Childhood Illness (IMCI) initiative was launched in 1996 to reduce the under-five mortality from pneumonia, diarrhea, measles, malaria, and malnutrition. Lessons learned from this scale-up focus on providing sustainable, community-based care, as well assuring the appropriate human resources to reduce childhood mortality in the nation. The PHC elements found in correspondence with this program are as follows:

- *Appropriate Human Resources:* The total number of trained doctors and nurses between 1996-2001 increased steadily, with a total of 53 workers trained in 1996, 457 in 1997, 442 in 1998, 591 in 1999, 377 in 2000, and 386 in 2001.
- *Adequate and Sustainable Resources:* The scale-up focused on strengthening the drug and vaccine availability.
- *Comprehensive and Integrated Care:* This was promoted through various supervisory activities, a strong referral system, and sufficient administrative support.

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[68] Huicho, Luis, et al. "Scaling up Integrated Management of Childhood Illness to the national level: achievements and challenges in Peru." *Health Policy and Planning* 20 (1): 14-24.

- *Family and Community Orientation:* The scale-up emphasized training of Community Health Workers, increasing the number of CHWs from 0 to 2,500 between 1996 and 2001.
- *Universal Coverage and Access:* The program aimed for 100% vaccination coverage levels for diseases such as polio and tuberculosis.

As this was one of the first IMCI interventions at the national and sub-national level, the constraints to scaling-up and lessons learned from Peru will be useful for other countries within the LAC Region that are looking to enhance their IMCI programs. Some factors that impacted the success of these childhood health interventions occurred at the following levels of care:

- *Community/Household level:* Low levels of education and cultural barriers to care affected the achievement of universal coverage and access.
- *Health Services Delivery Level:* There was insufficient pre-service/in-service/post-service training for health personnel. There were also very few IMCI facilitators available at the health district level for supervision. Staff turnover also affected the program's success.
- *Policy/Strategic Management Level:* Child Health was not a priority in the Ministry of Health's policies or district budgets. The poor information management at district level, high staff turnover in public sector, repeated political crises, and lack of political commitment also negatively impacted the scale-up.
- *Physical Environment:* Peru's geographical barriers (mountainous/jungle areas) were a factor in accessing care.

Overall, the program was successful at enhancing human resource capacity and expanding the coverage of care. Vaccination coverage levels ranged from 76.4% for polio to nearly 96.2% for tuberculosis. But since 1998, there has been a somewhat lower availability of vaccines and a decline in drugs and equipment. These statistics bring into question the issue of sustainability, and offer some important implications for other countries looking to expand their IMCI initiatives. Peru's example highlights the need to institutionalize IMCI at the national and district levels in order to secure adequate budgets and organizational structures. Human Resources were also stressed through the specific attention given to coordinating clinical and community IMCI training and staff turnover. For sustainability purposes, it is important not only to maintain staff once they have undergone training, but also to continue training refresher activities well beyond the initial program implementation.

Cambodia[69]

Cambodia has made impressive gains in immunization between the years 2000 and 2005, with rapid improvements in coverage (from 39% to 66% fully immunized child status) and sharp declines in reportable vaccine preventable diseases (from over 12,000 suspected measles cases in 2000 to less than 400 suspected cases in 2005). There has been a 33% decline in infant mortality in the same period.

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[69] Health System Strengthening Proposal, Cambodia, GAVI, October 26, 2006.

However, there remain several important health system challenges to the sustainability and reach of immunization services in Cambodia that have been identified in a range of research studies, sector reviews and national plans. They are as follows:

- *There is high immunization drop out (BCG-measles) in rural and remote areas (>10%)*
- *There is lower coverage and lower demand in high risk groups and children of families with low educational status (53% of children with parents that have no primary school entry are fully immunized, compared with 83% of children whose parents have entered secondary school)*
- *There is high dependence on health services outreach to reach program objectives (80% of children are vaccinated during village outreach)*
- *There are limits to quality and distribution of human resources and health service logistics in rural and remote areas*
- *Delayed and incomplete financing of the operational costs of primary care services limits the quality and coverage of immunization and other health programs*
- *Introduction of MPS services (minimum package of activity for primary level of care) across the country is not uniform; only 429 health centers are equipped to offer full MPA services (under 50% of facilities)*
- *There are poor capabilities for drawing up annual operational plans particularly at operational district and health centre levels; there is lack of knowledge and skills in measuring common indicators, and inability to marshal data to conduct analyses*
- *There is continuing lack of involvement of community leaders in local level planning and implementation*

The LAC Region IMCI Initiative[70]

The Integrated Management of Childhood Illness (IMCI) is a holistic approach to managing child health issues that focuses on the child's overall well-being in terms of both health and social needs. Developed by the World Health Organization, the strategy's preventive and curative elements aim to reduce death, illness, and disability while promoting improved growth and development among children under 5 years of age.[71] The LAC Region IMCI Initiative was started in 1997 through collaboration between USAID, PAHO/WHO, and BASICS I to begin program implementation in Bolivia, Ecuador, Peru, El Salvador, Guatemala, Honduras, Nicaragua, and Haiti. This initiative contains both preventative and curative elements, which are implemented into the countries' existing health infrastructures through health workers, families, and communities. By emphasizing disease prevention through immunization and improved nutrition, the program's vertical nature is shifted to a more integrated child health care approach. The following PHC elements were found to be in convergence with the Initiative:

- ***Adequate and Sustainable Resources*:** The initiative included an essential drugs assessment methodology, instruments, and training manuals. These resources aimed to

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[70] "Basics I Regional Program: LAC IMCI Initiative"

<http://www.basics.org/programs/ri/imcibasics1.html> .

[71] http://www.who.int/child-adolescent-health/integr.htm

make low-cost medicines and simple equipment available, as drug supplies has been the area of greatest weakness for the countries.

- *Appropriate Human Resources***:** The IMCI implemented a training course for nurse auxiliaries and community health workers. These courses trained health workers in new methods to examine/treat/counsel children and families, improving the workers' case management skills. PAHO/WHO's figures showed that 5,500 health workers were trained under the IMCI Initiative.
- *Optimal Organization and Management Practices:* Through a district management and organizational course, the IMCI Initiative encouraged appropriate planning, direction, organization, coordination, and control at all levels to create a functionally structured network of services.
- *Promotion and Prevention***:** Through a "talking to mothers" counseling module, informational materials, educational efforts, and behavioral change strategies, the Initiative went beyond clinical orientation to take a more population-based health promotion strategy.
- *Comprehensiveness and Integrated Care***:** The Initiative involved an extensive follow-up after clinical visits.
- *Family and Community Orientation***:** As part of the initiative, the "IMCI for the Home and the Community: Conceptual Framework" developed support mechanisms within communities for preventing disease, helping families care for sick kids, and getting kids to clinics and hospitals.
- *Intersectoral actions:* IMCI worked in conjunction with numerous other vertical programs within the health sector, taking a more holistic approach to child health. The Child and Adolescent Health and Development (CAH) coordinated the implementation of IMCI in conjunction with Roll Back Malaria (RBM), Nutrition (NUT), Expanded Program on Immunization (EPI), and Integrated Management of Pregnancy and Childbirth (IMPAC).

The IMCI Initiative in the LAC Region attempted to implement the program within the existing framework of health programs and services for each country. Part of the Initiative's success came from adapting the standard IMCI clinical guidelines to the specific country conditions and from taking an integrated approach to each nation's specific health policies. The program results were taken directly from each country, as child and neonatal mortality trends were diagramed throughout the course of the strategy implementation. Summary reports from national health surveys in Bolivia and El Salvador show a reduction in mortality rates for children under five from the late 1980's through 2003. For example, Bolivia's neonatal mortality reduced from 49 deaths per 1000 births during 1989-1993 to 27 deaths per 1000 births in 2003.[72] The emphasis placed on health personnel training resulted in the increased capacity of workers to manage cases. PAHO/WHO's figures show that prior to training efforts in 1997, only 54% of workers correctly managed diarrhea cases. But after the training in 1998, 93% of cases were managed correctly. This initiative corresponds with the Brazilian and Peruvian programs in its emphasis on expanding human resources capacity through training efforts. By maintaining an adequate staff of trained, capable personnel, the countries can further focus on setting up a primary care-based system that offers professional services at the local level to all citizens.

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[72] Cordero, Dilberth, et al. "An Analysis of the IMCI Implementation Process in Four Countries of Latin America." Basics II.

Improving Newborn Health[73]

In addition to reducing both maternal and child mortality rates, numerous "good practices" have been established in addressing newborn health. Newborn deaths during the neonatal period are as numerous as those deaths occurring in the next 11 months of life and among children aged 1-4 years. To successfully lessen this public health burden, vertical neonatal mortality reduction programs need to be integrated into the maternal and child health programs to provide continuous care before, during, and after pregnancy. Reports from the World Health Organization have found that instead of implementing highly specialized programs and technologies focused on neonatal health, the countries should instead focus on having a single health worker provide care throughout the entire course of pregnancy and infancy. Numerous countries worldwide have shown success in improving their maternal and neonatal health services by increasing the capacity of professional health workers at birth. Among those countries showing high-level commitment and notable progress in this area were Bolivia, Egypt, Indonesia, Morocco, and Nepal. For example, Bolivia created Women's Groups to promote newborn health strategies and participation from mothers, which resulted in a reduction of perinatal mortality from 117 to 44 deaths per 1000 live births. Nepal also developed a network of women's groups to increase its uptake of health services, and reduced neonatal mortality rates by 30%.

The most successful neonatal health interventions are cost-effective and rely on little technology, so that neonatal deaths can be reduced even in resource-limited settings. The Lancet Neonatal Survival Series has analyzed the causes behind the 4 million annual neonatal deaths, and has identified 16 interventions to prevent nearly 3 million of them. All 16 of these interventions are low-cost, low-technology, and have been proven effective in reducing neonatal mortality:[74]

1. *Skilled obstetric and immediate newborn care, including resuscitation*
2. *Emergency obstetric care to manage complications*
3. *Emergency newborn care for illness and low birth weight babies*
4. *Clean delivery*
5. *Hygienic cord/skin care, thermal care, promotion of early and exclusive breastfeeding*
6. *Four-visit antenatal package that includes tetanus immunization, detection and management of infections, pre-eclampsia, and other complications*
7. *Folic Acid supplementation*
8. *Detection and treatment of bacteriuria*
9. *Malaria intermittent presumptive therapy*
10. *Postnatal care to support healthy practices*
11. *Early detection and referral of complications*
12. *Birth preparedness and promotion of demand for care and readiness for emergencies*
13. *Counseling and preparation for newborn care*

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[73] World Health Organization, *The World Health Report 2005: Make Every Mother and Child Count* (Geneva, Switzerland: 2005) 79-101.

[74] World Health Organization, *The Executive Summary of The Lancet Neonatal Survival Series* (Geneva, Switzerland:) http://www.who.int/child-adolescent-health/publications/NEONATAL/Lancet_NSS.htm.

14. *Healthy home care, including promotion of demand for care*
15. *Extra care of low birth weight babies*
16. *Community case management for pneumonia*

These interventions are cost-effective and emphasize the continuum of care through pregnancy, birth, and the postnatal period. The three general realms of interventions- clinical care, outreach services, and family/community care- aim to provide a seamless continuum of treatment within the context of a PHC-based health system.

The Maternal and Neonatal Health Program (MNH)[75]

The Maternal and Neonatal Health Program, started in 1998 through the Johns Hopkins Center for Communication Programs (JHPIEGO), is a program established to increase the use of safe and effective maternal and neonatal health practices throughout 11 countries in Africa, Asia, and Latin America. Through the program's global agenda to expand international safe motherhood efforts, clinical services and policy interventions are created at the country-level. The MNH program has scaled-up its practices at the global, regional, and country levels, which has provided valuable lessons for scaling-up approaches based on elements of PHC. The program has seen international success due to its reliance on the basic fundamentals of PHC-based care, which are highlighted as follows:

- *Universal Coverage and Access:* Under a plan for geographical expansion, the program reached an additional 392,931 people in Guatemala through collaborations with the Ministry of Health, CARE, Project HOPE, and World Doctors.
- *Emphasis on Promotion and Prevention:* The Nepal Safe Motherhood Project broadcasted 7 safe motherhood radio dramas on local radio stations to disseminate information about birth preparedness, male involvement, and essential obstetric care. The program also focuses on building an evidence-base for social and behavioral change interventions in order to generate informed demand and collective action for safe motherhood.
- *Appropriate Human Resources:* The program aims to increase the number of skilled health workers by implementing guidelines in policy, curricula, and competency-based training. The program also invested in a core group of expert trainers to advocate for maternal/newborn good practices throughout the region, and nearly 30 different organizations have used these "experts" to train their health care providers.
- *Family and Community Orientation/Active Participation:* The program generates coordinated action towards shared responsibility among policymakers, health facilities, providers, communities, families, and women.
- *Intersectoral actions:* The program collaborates with global and national partners to scale-up the evidence-based safe motherhood practices, tools, and approaches. These partnerships work to promote international, evidence-based standards of care while forming collaborative relationships with other safe motherhood organizations.
    - o *Partnerships formed with the MNH Program*: WHO, CDC, Malaria Action Coalition, UNFPA, Global Health Council, NGO Networks

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[75] Robb-McCord, Judith and Wendy Voet, *Scaling Up Practices, Tools, and Approaches in the Maternal and Neonatal Health Program.* JHPIEGO: Baltimore, 20003.

- o *Partnerships between MNH and other Vertical Programs*: The Roll Back Malaria Initiative and the WHO's Making Pregnancy Safer Initiative (to combat malaria during pregnancy)
  - o *Partnerships with other countries*: Burkina Faso, Guatemala, Indonesia, Nepal, Zambia are forming partnerships to share program successes and failures.
- • ***Pro-Equity Policies and Programs:*** Bolivia's Ministerial Resolution #0496 updated 18 maternal/newborn healthcare practices, which eliminated the national-level barriers to providing high-quality healthcare for mothers and newborns. Tanzania's National Package of Reproductive and Child Health Interventions (NPERCHI) defined the minimum package of essential care that should be offered at each level of the service delivery system.

Overall, the international MNH program uses quantitative, functional, political, and organizational scale-up approaches to achieve success in promoting maternal and neonatal health. While the program has various roots in a PHC-based system, its international success is due largely in part to the valuable partnerships that it has formed globally, nationally, and locally. Through these relationships, the most effective interventions can be shared across countries.

With the abundance of evidence-based practices and the numerous MCH programs that have been successfully implemented around the world, a solid foundation for achieving the 4th and 5th Millennium Development Goals by 2015 has been established. Specifically within the LAC Region, it is necessary to create an environment of action, monitoring, and continual evaluation of MCH services that focuses on achieving results and implementing cost-effective and evidence-based actions. The country examples have emphasized that adequate access to promotional and preventative services for sexual and reproductive health are essential to MCH, and increasing sexual and reproductive health education in schools can help lower adolescent pregnancy rates. But major challenges to MCH practices still exist for countries, especially within the LAC Region. Despite efforts, there is still a lack of social communication programs that employ the media to educate the youth on their reproductive health rights and roles. Financial gaps also exist for programs aimed at MCH, with financial contributions lacking from both the government and from external agencies, as well as an exclusion of MCH from district budgets. Furthermore, there is a lack of programming to include *men* in the offered reproductive health services. Making men aware of their role is crucial to a programs success.[76]

HIV/AIDS

Brazil[77]

The experience of Brazil has often been mentioned in the context of stronger calls to scale-up ARV. One prominent feature of Brazil's HIV/acquired immunodeficiency

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[76] Medici, André. "Mejorar la salud maternal en América Latina y el caribe," *Los objetivos de desarrollo del milenio en américa latina y el caribe*.
[77] Based on excerpts from *Viewpoint: The Brazilian HIV/AIDS "success story"- can others do it?,* Tropical Medicine and International Health, Volume 9 No. 1 PP 192-197, February 2004.

syndrome (AIDS) program – universal access to ARVs – plus epidemiological data indicating that the spread of the disease has been brought under control, have resulted in the program often being hailed as a "success story".

At the beginning of 2003 the official statistics showed that there were approximately 125,000 people in Brazil benefiting from a policy that ensures AIDS patients receive the full range of ARV treatments, completely cost-free, in the national public health system. The program offers 15 anti-retrovirals, eight of which are produced nationally. The number of patients on ARV treatment corresponds to essentially 100% of the total number of registered AIDS cases; and 20% of the total estimated number of HIV-infected individuals.

Universal access to ARVs has been a major gain for AIDS patients in Brazil, and a showcase element of the Brazilian program. However, ARV provision is but one part of the Brazilian effort to deal with the epidemic, and the achievements need to be understood in the broader context of the economic, political, social and epidemiological characteristics of the epidemic and the varied responses to it.

- *Rapid and Concerted Response by Government and Civil Society.* The initial failure of government authorities to respond to the epidemic was confronted by strong social mobilization, particularly of gay groups who were among the first to organize into non-governmental organizations (NGOs).
  - o The response was concerted, through partnerships involving the public, non-governmental and private sectors.
  - o The sectors combined and complemented each other's expertise and resources, and thus were able to expand the range and coverage of HIV/AIDS activities.
  - o Strong leadership in government and civil society played an important part in consolidating the response.
  - o Civil society participates actively in policy formulation and evaluation, through presence on steering committees of the national HIV/AIDS program and in other government forums.
  - o NGOs also collaborate in program delivery, particularly to high-risk groups.
  - o Lastly, civil society also forms pressure groups outside of formal structures when crucial opportunities and decisions arise.
- *A Comprehensive National Response.* Treatment, including ARVs, is just one part of a balanced program which has also placed strong emphasis on prevention and human rights protection. The government has established a set of comprehensive prevention activities, such as media campaigns and distribution systems for preventive commodities, aimed at both the general public and specific high-risk population groups.
- *High Resolution Capacity of the Health System.* In relation to infrastructure, the Brazilian AIDS program has established a specific network of units (not necessarily by creating new physical units, but often by strengthening existing ones with additional resources) for the provision of care that includes:
  - o 375 conventional hospitals and 79 day-hospitals accredited for HIV/AIDS care;
  - o 53 home care therapeutic services;
  - o 381 specialized outpatient care units;
  - o 73 laboratories for TCD4+ count;
  - o 65 laboratories for viral load count;
  - o 12 laboratories for ARV resistance genotyping;

- o 1126 health units providing sexually transmitted infection (STI) care on the basis of syndromic management;
  - o 220 voluntary counseling and testing (VCT) centers.
- *Low prevalence of the Disease, in the context of Substantial Fiscal Capacity*. Brazil's 0.7% AIDS prevalence among the adult population (15–49 years) is low compared with other countries.
  - o Hence the stresses put on the health system and public spending in combating the disease, including the provision of universal ARVs, have been correspondingly smaller and more manageable than if the number of infected were as high as in many other countries.
  - o Universal access to ARVs relies not only on patented drugs but also on generic ones produced in country by publicly owned laboratories.

Brazil has been able to implement a successful national HIV/AIDS program, balancing several elements of prevention and treatment, which has brought the epidemic under control in the country. The Brazilian experience shows that governments must acknowledge that "health care is as much a central responsibility as national defense" and that "integrality recognizes that the governmental responsibility to health is not limited to the basic prevention measures (…) (…) prevention must be integrated with care and treatment".[78] However, it's possible replication or applicability in other countries of the Region will depend on the interaction between pre-existing characteristics and possible interventions. While capacity elements and enabling factors that appear to have been important in Brazil are not unique, they are also not universal. Other countries need to evaluate to what degree they might have sufficient conditions for implementing a program of the type and in a manner such as Brazil's.

Haiti[79]

The scale-up of ARV therapy in Haiti took a comprehensive, community-level approach that emphasized low-technology treatment options. While the program did not see an extremely rapid scale-up, it was fairly comprehensive in terms of building capacity within the local health clinics and increasing the community demand for HIV/AIDS treatment and for other general public health care services. Haiti also adopted the Partner's in Health Approach of using *accompagnateurs* to visit patients in their homes once or twice daily. These *accompagnateurs* followed approximately 4 patients each, and were supervised closely by a head nurse to ensure adherence to the treatment. As a result, the program's focus on human resources and decentralization allowed for 700 HIV-infected people to be followed and over 1,500 patients were treated through this "directly-observed" therapy program.

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[78] "A Critical Analysis of the Brazilian Response to HIV/AIDS: Lessons Learned for Controlling and Mitigating the Epidemic in Developing Countries", Public Health Matters, American Journal of Public Health, July 2005, Vol. 95, No. 7.

[79] "Scaling Up Health Investments in Developing Countries: Lessons About What Works," *Report on Wilton Park Conference WP751, West Sussex, UK,16-18 June 2004,* 7-8.

Partners in Health Equity Initiative Program: HIV/AIDS[80]

Also launched in Haiti, this public health initiative was one of the first programs worldwide to provide free HIV treatment and prevention to the poor. It emphasized AIDS treatment and prevention in the context of primary care, incorporating the following PHC-based system elements:

- *Emphasis on Promotion and Prevention:* The initiative aimed to improve screening and treatment for sexually transmitted infections, since untreated STI's can elevate the rate of HIV transmission tenfold, cause cervical cancer and infertility, and put pregnant women and their babies at an increased risk.
- *Comprehensive and Integrated Care:* The initiative provided nutritional and social support along with the necessary medicines and treatment.
- *Intersectoral Actions:* The initiative worked closely with Tuberculosis and Maternal and Child Health programs to focus on the comprehensive health needs of the community.
  - *Tuberculosis:* The initiative recognized the importance of treating HIV and TB together. Tuberculosis is the leading cause of death among HIV-positive people worldwide, and addressing the two diseases simultaneously can increase the effectiveness of both interventions.
  - *Maternal and Child Health:* By addressing HIV/AIDS in conjunction with MCH programs, the initiative aimed to prevent mother-to-child transmission and allow for earlier diagnoses of HIV in newborns.
- *First Contact:* This program's emphasis on Maternal and Child Health also provided an entry point for HIV counseling and testing.

This program's comprehensive, community-based approach was so successful that even during the coup d'état in Haiti during 2004, no PIH patient missed a dose of medication. The program's success also encouraged an influx of funding towards treating diseases of the poor.

Zambia[81]

The rapid scale-up of antiretroviral therapy at primary care sites in Zambia was one of the largest evaluated scale-ups of ARV provisions in a resource-limited setting. This scale-up's substantial increase in coverage and access was facilitated by the use of a comprehensive information system to track patient treatment and outcomes. This system assisted with clinical organization and management, patient adherence, and identification of those patients requiring a follow-up. The PHC elements of universal coverage, comprehensive care, and system integration were crucial to the scale-up's success.

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[80] http://www.pih.org/issues/hivaids.html
[81] http://hivinsite.ucsf.edu/InSite?page=jl-01-02

Malawi[82]

Malawi's "Scaling-up Through Expanded Partnerships" (STEPS) program was started in 1995 as a service-delivery program in one district to help HIV/AIDS-infected children. STEPS aimed to revamp the national AIDS committees and mobilize collective action at the district, community, and village levels under the National AIDS Commission (NAC). STEPS has now expanded to 4 more districts, and plans to cover two more (nearly 15% of Malawi's population) by 2005. This vertical program is structured around these community-level AIDS committees, but also converges with these other elements of PHC:

- *Intersectoral Actions:* STEPS was able to scale-up HIV/AIDS interventions through its wide spectrum of partners within the public and private sectors, civil society, and faith communities.
- *Family and Community Orientation:* By decentralizing the implementation of care to the community level, the STEPS program was able to mobilize collective participation within the regions.
  - Malawi's STEPS program found that rural communities with agrarian lifestyles and traditions of "collective action" had a clear advantage in implementing the program, when compared with the urban areas of more individualized/touristy livelihoods.
  - Inter-Community interactions were facilitated through the program of "open days", where STEPS communities visit with each other to share successes and failures.
- *Optimal Organization and Management Practices:* Through the formation of village AIDS committees, STEPS was able to provide the appropriate prevention, care, and support that addressed the local needs. This decentralized organizational framework was a major factor in the program's success.
- *Comprehensive and Integrated Care:* Malawi's program adopted a Management Information System (MIS), which involved a database of 53 monitoring indicators at 3 levels (district, health catchment area, and village). The collected data were discussed within community committees, and used to influence community-level action so that all health needs were met.
- *Appropriate Human Resources:* The health personnel and committee members found that local leadership was the most critical factor in generating collective action and guaranteeing high community participation.
  - Malawi's proposal for an integrated HIV/AIDS and Malaria plan identified *human resource development* as one of the key priority areas for the health sector and a "prerequisite for the successful implementation of the Essential Health Package…and the efficient implementation of the Integrated National Response to HIV/AIDS and Malaria"[83]
- *Active Participation Mechanisms:* The president of Malawi maintained the government's political commitment by declaring HIV/AIDS a national emergency in 1999. This resulted in the adoption of a comprehensive national HIV/AIDS strategic framework and multisectoral approach. HIV/AIDS also became part of the national and

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[82] Gillespie, Stuart, *Scaling Up Community-Driven Development: A Synthesis of Experience,* International Food Policy Research Institute: Washington, D.C., 2004. pp. 14, 18.
[83] Malawi's Round 1 integrated HIV/AIDS and malaria proposal

local development strategies through the establishment of the National AIDS Commission in 2000.
- ***Pro-Equity Policies and Programs:*** From 1998-2001, a study by the Policy Project showed that the policy environment in which Malawi's health issues were addressed has improved greatly across seven indicators.

Malawi's Integrated National Response takes a decentralized approach that relies heavily upon community-level input through the formation of village AIDS committees. The decentralized approach also allowed for a greater level of interaction between the program leaders and the community, allowing for a broader area of coverage and an overall greater treatment success.

The World Health Organization's "3x5" Initiative[84]

The WHO's initiative to provide life-long ARV's to 3 million people living with HIV/AIDS by the end of 2005 has underscored the importance of making access to ARV treatment a human right worldwide. This initiative incorporated the following PHC elements:

- ***Emphasis on Promotion and Prevention:*** This initiative integrated prevention and treatment, which led to an increased demand for HIV counseling and testing services. As access to ARV therapy increases, new families and couples are taking advantage of their testing options and are becoming aware of their HIV status.
- ***Universal & Equitable Access[85]:*** The initiative made access to ARV's a human right for those who need it. The number of men/women/children with HIV that received ARV therapy increased from 400,000-3,000,000 between Dec 03-Dec 05. And data from Sub-Saharan Africa indicate that nearly 6/10 adults on ARV therapy are women, showing an equitable distribution since more women are infected than men. However, coverage has not been successfully extended to children. Estimates from the WHO/UNICEF/UNAIDS partnership suggest that 660,000 children globally still needed access to ARV Therapy in 2005.
- ***Intersectoral Actions[86]:*** The initiative focused on establishing global leadership and forming strong partnerships. The number of partner organizations involved in the initiative increased from 10-200 between December, 2003 and December, 2005. The number of public organizations and NGO's providing services increased from 1,000-20,000 between June, 2004 and December, 2005.
- ***Active Participation Mechanisms/Pro-Equity Policies[87]:*** 40 out of 49 of the focus countries have set national treatment targets, and 34 out of the 49 countries are developing (or have completed) national treatment scale-up plans. This is a significant increase from the 3 countries developing targets 18 months ago.

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[84] WHO, *Treating 3 Million by 2005: Making it Happen: The WHO Strategy* (Geneva, Switzerland: 2003) 1-60.

[85] WHO, *Progress on Global Access to HIV Antiretroviral Therapy: An update on "3x5"* (Geneva, Switzerland: 2005) 18.

[86] WHO, *Treating 3 Million by 2005: Making it Happen: The WHO Strategy* (Geneva, Switzerland: 2003) 53-55.

[87] WHO, Progress on Global Access to HIV Antiretroviral Therapy: An update on "3x5" (Geneva, Switzerland: 2005) 8.

- *Adequate and Sustainable Resources:* The initiative sought to provide an effective and reliable supply of medicines and diagnostics.
- *First Contact:* Many countries have expanded access to testing and counseling by making effective use of entry points in health services. Kenya, for example, reported an increase in the number of patients tested and counseled between 2000-2004, thanks to an expansion of the test sites in clinics and community-based settings.
- *Appropriate Human Resources[88]:* The initiative has adopted successful approaches from other scale-ups in shifting from a physician-centered model to an expanded team of nurses, clinical officers, and community support players.
  - The number of additional staff realigned to WHO country offices for this program increased from 25-480 between December, 2003 and December, 2005.
  - The number of training packages and guidance documents increased from 5-18 during this period.
  - The number of health providers and community treatment supporters trained to deliver ARV therapy increased from 10,000-100,000 between June, 2004 and December, 2005.

Numerous factors have contributed to the success advancing ARV Treatment access in countries worldwide. The progress that has been made towards reaching the initial goal was possible through the strong relationship between this vertical initiative and numerous elements of a PHC-based health system. By incorporating these elements within the context of overall health system functions, the initiative was implemented in conjunction with an overall regeneration of the countries' health systems. Through the intersectoral partnerships with donors, the scaling-up of human resources capacity, the emphasis on prevention, and the sustained political support from within the countries, this initiative achieved important developments in providing universal, cost-effective therapy at the community-level. By analyzing the program's structure and results, we can recommend certain techniques that can be applied to scaling-up within other countries. Overall, these results provide us with the important lesson that in working towards strengthening overall health systems capacity, vertical programs "cannot be implemented in isolation from a regeneration of health systems."[89]

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[88] WHO, *Treating 3 Million by 2005: Making it Happen: The WHO Strategy* (Geneva, Switzerland: 2003) 53-55.
[89] Evans, Tim, et al, "Making health systems work," *Global HealthLink* 133 (2005): 1-4.

Bibliography

AbourZahr Carla — *Safe Motherhood: a brief history of the global movement 1947-2002.* British Medical Bulletin 67 (2003): 13-25.

Abreu A., I. Noguer, K. Cowgill — *HIV/AIDS in Latin American Countries: The Challenges Ahead,* Human Development Network; Health, Nutrition, and Population Series, 2003.

Akihiro Seita — *Think PHC, Do TB*: Integration-based scale up of tuberculosis control in Japan. <http://www.hsph.harvard.edu/takemi/RP217.htm>.

Basics I — Regional Program: *LAC IMCI Initiative* <http://www.basics.org/programs/ri/imcibasics1.html> .

Behrman Jere, A. Gaviria and M. Székely — *Who's in and Who's Out. Social Exclusion in Latin America,* Inter-American Development Bank (IDB), Washington DC, 2003.

Bengoa Rafael., J.M. Fernandez, P. Key, D. Nichol, and R. Nuño — *A Descriptive Review of the Health Systems of Latin American Countries.*

Berkman Alan, J. Garcia, M. Muñoz-Loboy, V. Plava, and R. Parker — *Public Health Matters, A Critical Analysis of the Brazilian Response to HIV/AIDS: Lessons Learned for Controlling and Mitigating the Epidemic in Developing Countries,* American Journal of Public Health, July 2005.

Catalyst Consortium — *Integration of Family Planning/Reproductive Health and Maternal and Child Health Services: Missed Opportunities and Challenges. TAHSEEN Project,* November 2003.

CEPAL — *Estudio Económico de América Latina y el Caribe 2004-2005.*

Cordero D., R. Salgado and C. Drasbek — *An Analysis of IMCI Implementation Process in Four Countries in Latin America.* Edited by Tina G. Sanghvi and Mireille Mather. Arlington, Virginia: BASICS II for the United States Agency for International Development and the Pan American Health Organization, 2004. *An Analysis of the IMCI Implementation Process in Four Countries of Latin America.* Basics II.

Darrell HS Tan, R. EG Upshur, and N. Ford — *Global plagues and the Global Fund: Challenges in the Fight Against HIV, TB and Malaria*, BMC International Health and Human Rights, 20035.

De Savigny, D., H. Kasale, C. Mbuya, and Graham Reidon — *Fixing Health Systems*, International Development Research Center in collaboration with the Ministry of Health of Tanzania, 2004.

Declaración de Sevilla — *Comprometidos con la Salud de la Población*, I Cumbre Iberoamericana de Medicina Familiar.

DFID	*The Challenge of TB and Malaria Control*, UK Department for International Development, 2005.
DFID	Scaling Up Health Investments in Developing Countries: Lessons About What Works, *Report on Wilton Park Conference WP751, West Sussex, UK,16-18 June 2004,* 7.
Diaz Cristina, G. Kourí, M. Bonet, Á. M. Álvarez, D. Torres, A.M. de la Cruz, O. Fuentes, L. Alfonso, B. Galindo, A. Reyes, D.M. Torres, M. Rodríguez, A.M. Ibarra, M. Concepción, L. Rufino. M.A. Mariné, M.E. Piquero, I. Valdés, A. Valero, I. Castillo, and B. Ramírez	*An ecosystem approach to human health for the prevention of Dengue at local level*, Global Forum for Health Research, Forum 8. Mexico City: November 2004.
ECLAC	*Achieving the Millennium Development Goals in Latin American and the Caribbean,* June 2005.
Evans Ann R.	*Opportunities for TB Collaboration: Proceedings of a CORE Group Workshop*, CORE, 2003.
Evans Tim, S. Bennettii, P. Davis, P. Travis, S. Wibulpolprasert, and P. Zeitz	*Making Health Systems Work,* Partners for Health Reform Plus, 2005.
Frenk J., F. Knaul, E. Gonzalez-Pier, and M. Barraza-Llorens	*International Conference on Social Health Insurance in Developing Countries, Keynote* address: "Poverty, health and social protection", Berlin, Germany, December 6, 2005.
Gillespie Stuart	*Scaling Up Community-Driven Development: A Synthesis of Experience,* International Food Policy Research Institute: Washington, D.C., 2004. pp. 14, 18.
Global Health Policy Research Network	*Millions Saved: Proven Successes in Global Health,* CGD Brief, October 2004, Volume 3, Issue 3.
Gonzalves Julian and R. Armonia (eds.)	*Scaling Up: Can We Bring More Benefits to More People More Quickly? An Executive Summary.* International Institute of Rural Reconstruction (IIRR), 2000.
Goodburn Elizabeth and O. Campbell.	*Reducing maternal mortality in the developing world: sector-wide approaches may be the key.* British Medical Journal 322 (2001): 917-920.

Gubler Duane J.	*Dengue and Dengue Hemorrhagic Fever.* Clinical Microbiology Reviews. 11(1998): 480-496.
Hancock, Jim, F. Proctor and C. Csakiet	*Scaling-Up the Impact of Good Practices in Rural Development.* The World Bank, 2003.
Health Canada	*Reducing Health Disparities – Roles of the Health Sector: Discussion Paper*, Health Disparities Task Group of the Federal/Provincial/Territorial Advisory Committee on Population Health and Health Security, 2005.
Huicho Luis, M. Dávila, M. Campos, C. Drasbek, J. Bryce, and C. G Vitora	*Scaling up Integrated Management of Childhood Illness to the national level: achievements and challenges in Peru.* Health Policy and Planning 20 (1): 14-24.
IADB	*The Millennium Development Goals in Latin America and the Caribbean: Challenges, Actions, and Commitments*, May 2004.
IADB	*Poverty Reduction and Promotion of Social Equity*, Strategy Document, Washington, DC, July 2003.
Johns Benjamin and T. Torres	*Costs of Scaling-Up Health Interventions: A Systematic Review*. WHO-CHOICE, 2005.
Jong-Wook Lee	*Global Health Improvement and WHO: Shaping the Future*, The Lancet, 2003.
Journal of International Development	*Expanding Access to Priority Health Interventions:* A Framework for Understanding the Constraints to Scaling-Up, 2003.
Kohl Richard and L. Cooley	*Scaling-up – A Conceptual and Operational Framework.* Management Systems International, 2005.
LACHSR/LACRSS	*Challenges to Scaling-up Health Systems,* Strengthening Health Systems and Reforms, Issue #7, 2004.
Levcovitz Eduardo	*Trends in Health Sector Reform in Latin America in the 90's and Challenges for Social Protection in Health in the 21st Century,* GTZ-ILO-WHO International Conference, Social Health Insurance in Developing Countries, Powerpoint presentation.
Lloyd Linda S.	*Best Practices for Dengue Prevention and Control in the Americas*, Environmental Health Project, 2003.
Londono J.L. and J. Frenk	*Structured Pluralism: Towards an Innovative Model for Health System Reform in Latin America,* Health Policy 41 (1997) 1-36.
López-Acuña Daniel	*The Nature of Health Sector Reform in the Americas and its Significance for PAHO/WHO's Technical Cooperation*, Background Paper for the Annual PAHO/WHO Managers Retreat, October 23-24 2000.

Mackintosh M.   *Do Health Care Systems Contribute to Inequalities? Poverty, Inequality and Health: An International Perspective*, Oxford University Press, 2001.

Magnussen Leslie., J. Ehiri and P. Jollyet   *Comprehensive Versus Selective Primary Health Care: Lessons For Global Health Policy,* Health Affairs, Volume 23, Number 3.

McCoy D.   *Expanding Treatment Access and Strengthening HIV/AIDS Programmes in Wats that Strengthen the Broader Health Systems Agenda*, Issues for the Global Fund to Fight HIV/AIDS, TB, and Malaria, Medical Research Council of South Africa, 2005.

McIntyrea Diane, M. Thiedea, G. Dahlgrenb and M. Whitehead   *What are the economic consequences for households of illness and of paying for health care in low and middle-income country contexts?,* Health Economics Unit, University of Cape Town, Cape Town, South Africa, University of Liverpool, UK, Social Science & Medicine, Volume 62, Issue 4, February 2006, Pages 858-865.

Medici André.   *Mejorar la salud maternal en América Latina y el caribe*, Los objetivos de desarrollo del milenio en   ufino   latina y el caribe.

Mills Anne   *Mass campaigns versus general health services: what have we learnt in 40 years about vertical versus horizontal approaches?* Bull World Health Organ, April 2005, Vol. 83, no.4, p. 315-316.

Mukherjee, Joia S.   *HIV-1 care in resource-poor settings: a view from Haiti*, Lancet. 362(2003):994-995.

National Academy Press   *Primary Care: America's Health in a New Era*.

Northrup Robert S.   *Critical Elements For Improved Global health,* Book Review, Health Affairs, Volume 24, Number 3.

Oliveira-Cruz Valeria, J. Kowalski and B. McPake   *Viewpoint: The Brazilian HIV/AIDS "success story"- can others do it?,* Tropical Medicine and International Health, Volume 9, No. 1, pp. 191-197. February 2004.

Oliveira-Cruz Valeria, K. Hanson and A. Mills.   *Approaches to Overcoming Constraints to Effective Health Service Delivery: A Review of the Evidence*, Journal of International Development. 15(2003): 52-53.

Oxford University Press   *Anthropology in Public Health*, *Bridging Differences in Culture and Society*, 1999.

PAHO/WHO   *Reduction of Maternal Mortality and Morbidity,* Interagency Strategic Consensus for Latin America and the Caribbean, Washington, DC, 2003.

PAHO/WHO   *Health Situation and Trends in the Americas,* Draft, June 2006.

PAHO/WHO	*Excerpts from Reduction of Maternal Mortality and Morbidity,* Interagency Strategic Consensus for Latin America and the Caribbean, 2003.
PAHO/WHO	*La Participación Social en el Desarrollo de la Salud: Experiencias Latinoamericanas,* Serie Desarrollo y Fortalecimiento de los Sistemas Locales de Salud, 1995.
PAHO/WHO	*Investment in Health: Social and Economic Returns,* Scientific and Technical Publication No. 582, 2001.
PAHO/WHO	*The Health-Development Link*, 1994.
PAHO/WHO	*Editorial: Challenges to Scaling-Up Health Systems*, Strengthening Health Systems and Reforms, LAC HSR Initiative, Issue #7, 2004.
PAHO/WHO	*Renewing Primary Health Care in the Americas: A Position Paper of the Pan American Health Organization/WHO,* Draft for discussion, July 2005.
PAHO/WHO	*Health Systems Performance Assessment and Improvement in the Region of the Americas*, Washington DC, 2001.
PAHO/WHO	*Dengue Prevention and Control*, 2001
PAHO/WHO	*Regional Consultation of the Americas on Health Systems Performance Assessment*, Washington, DC, May 8 10, 2001.
PAHO/WHO	*Situación de Salud Sub-Region Andina,* Versión Preliminar, Representación OPS/OMS La Paz, Bolivia, Oficina de Apoyo a los Países (CSU), Washington, DC, March 13, 2006.
PAHO/WHO	*Proceso de Programación Subregional BPB 2006-2007, Análisis de Situación de Salud, Subregión Centroamericana y Rep. Dominicana,* (CSU) Country Support Unit, Documento de Trabajo, Borrador Febrero 2, 2006.
PAHO/WHO	*Plan Estratégico de Tuberculosis 2006-2015* (Forthcoming).
PAHO/WHO	*Regional Strategy for the Control of Tuberculosis for 2005-2015,* CD46/18, Rev. 1 (Eng), 16 September 2005.
PAHO/WHO	*Malaria and the Internationally Agreed-upon Development Goals, Including those contained in the Millennium Declaration,* CD46/17 (Eng), 15 July 2005.
PAHO/WHO	*Americas Commit to 100% ART Access by 2005,* Fact Sheet.
PAHO/WHO	*Renewing Primary Health Care in the Americas: Rationale for and Evidence on the Proposed Elements and Principles of a Primary Health Care-based Health System,* Draft June 2006.

PAHO/WHO	*Special Topic: The Ten Leading Causes of Death in the Countries of the Americas,* Health Statistics for the Americas 2006 Edition.
PAHO/WHO	*Health Conditions in the Americas,* Washington, DC, 1994.
PAHO/WHO	128th Session of the Executive Committee: "Dengue Prevention and Control," June 2001, Washington, D.C.
PAHO/WHO-SIDA	*Exclusion in Health in Latin America and the Caribbean,* Series No. 1 Extension of Social Protection in Health, Washington DC, 2004
PAHO/WHO-USAID	*Health Systems Profiles:* Methodological Guidelines for Monitoring and Analyzing Health Systems Change/Reform, Washington 2006.
Pan American Journal of Public Health	*Special Issue on Health Sector Reform*, Vol 8, No.1 and No. 2, July/August 2000.
Partners for Health Reform*plus* Project	*Taking Forward the Health Systems Agenda:* Report of a Consultation on Developing the Health Systems Action Network, Draft for Comment, 8 February 2006.
Phyllida T., S. Bennet, A. Haines, T. Pang, Z. Bhutta, A. Hider, N. Pielmeier, A. Mills, and T. Evans	*Overcoming Health-Systems Constraints to Achieve the Millennium Development Goals,* The Lancet 2004, 364: 900-06.
Pielemeier Nancy, P. Bhatt and O. Smith	*Lessons from Health System Strengthening Can Lead to Rapid Scale-Up of HIV Programs*, Abt Associates, 2005.
Pioccotto Robert.	*Scaling Up: A Development Strategy for the New Millennium.* Global Policy Project. 2003.
Rajesh Gupta, A. Irwin, M. C Raviglione, and J. Yong Kim .	*Scaling-up Treatment for HIV/AIDS: Lessons Learned from Multi-drug Resistant Tuberculosis*, World Health Organization (WHO). The Lancet, Vol. 363, 2004.
Raviglione M.C., C. Dye, S. Schmidt, and A. Kochi	Assessment of worldwide tuberculosis control. *Lancet* 1997; 350:624-629.
Robb-McCord J. and W. Voet	*Scaling Up Practices, Tools, and Approaches in the Maternal and Neonatal Health Program.* JHPIEGO: Baltimore, 20003.
Rojas R. and N. Shuqair	*Orientación de los Marcos Jurídicos hacia la Abogacía en Salud de los Pueblos Indígenas*, Estudio de las Legislaciones de Colombia, Bolivia, El Salvador, México, y Honduras, OPS/OMS, 1998.
Ruxin J., Paluzzi, P. Wilson, Y. Tozan, M. Kruk, and A. Teklehaimanot	*Emerging Consensus in HIV/AIDS, Malaria, Tuberculosis, and Access to Essential Medicines*, The Lancet, Volume 365, 2005. (618)

Sang-Yi, L. and C. Chang-Bae	*The National Health Insurance as One Type of New Typology : The Case of South Korea and Taiwan.*
Simmons Ruth, J. Brown, and M. Diaz	*Facilitating Large-scale Transitions to Quality of Care: An Idea Whose Time Has Come.* Studies in Family Planning. Volume 33, Number 1, 2002.
Stop TB Partnership	*Brazilian Partnership Against Tuberculosis* <www.stoptb.org/national_partnerships/assets/documents/ Stop%20TB%20Brazil%20Factsheet%202005.pdf>.
Suárez Pedro G., C. J. Watt, E. Alarcón, J. Portocarrero, D. Zavala, R. Canales, F. Luelmo, M. A. Espinal, and C. Dye	*The dynamics of tuberculosis in response to 10 years of intensive control effort in Peru.* Journal of Infectious Disease 2001; 184: 473-478.
Suchi M and S. Tateno	*Tuberculosis in Asia. Kekkaku* 2002; **77**:693–697. (Article originally in Japanese, abstract taken from website <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi? Cmd=Retrieve&db=PubMed&list_uids=12440145&dopt=Abstract>).
Svitone Ennio Rufino, R. Garfield, M. I. Vasconcelos, and V. Araujo Craveiro .	Primary health care lessons from the Northeast of Brazil: the *Agentes de Saúde* Program. Revista Panamericana de Salud Pública 7 (2000).
Tan Darrell HS, R. EG Upshur, and N. Ford	*Global plagues and the Global Fund: Challenges in the fight against HIV, TB, and Malaria*, BMC International Health and Human Rights 3:2 (TB Binder, Volume I, Section 1, p. 5/19)
Teklehaimanot Awash	*Coming to grips with malaria in the new millennium*, UN Millennium Project Task Force on HIV/AIDS, Malaria, TB and Access to Essential Medicines (2005): 74.
The Lancet Series	*Indigenous Health 2: Indigenous Health in Latin America and the Caribbean,* Vol. 367, June 3, 2006.
The Lancet Series	*Making Health Systems More Equitable,* Vol. 364, October 2, 2004.
UBC Centre for Health Services and Policy Research	*Measuring the Performance of Primary Health Care, Existing capacity and future information needs,* College of Health Disciplines, The University of British Columbia, October 2006.
UN Millennium Project	*Combating Aids in the Developing World*, UN Millennium Project, Task Force on AIDS, Malaria, TB, Other Major Diseases, and Access to Essential Medicines, 2005.
Unger Jean Pierre, P. DePaepe, P. Ghilbert, H. Mcomm, W. Soors, and A. Green	*Integrated care: a fresh perspective for international health policies in low and middle-income countries,* International Journal of Integrated Care – Vol. 6, 18 September 2006.

Unger Jean Pierre, P. DePaepe, P. Ghilbert, H. Mcomm, W. Soors, and A. Green	*Disintegrated care: the Achilles heel of international health policies in low and middle-income countries,* International Journal of Integrated Care – Vol. 6, 18 September 2006.
United Nations	*The Millennium Development Goals Report, 2006.*
Uvin, Peter and D. Miller	*Scaling-Up: Thinking Through the Issues.* The World Hunger Program, 1994.
WHO	The World Health Report 2000, *Health Systems: Improving Performance.*
WHO	*Towards Unity for Health: Challenges and Opportunities for Partnership in Health Development.*
WHO	*Macroeconomics and Health: Investing in Health for Economic Development*, 2001.
WHO	*Primary Health Care Concepts and Challenges in a Changing World*, *Alma-Ata revisited.*
WHO	*Health and the Millennium Development Goals*, Geneva, 2005.
WHO	*The World Health Report 2003: Shaping the Future.*
WHO	*An Expanded DOTS Framework for Effective Tuberculosis Control.*, 2002
WHO	*Expanding DOTS in a Changing Global Health Systems*, 2003.
WHO	*Scaling-up the Responses to Infectious Diseases: A Way out of Poverty*, WHO Commission on Macroeconomics and Health, 2002.
WHO	*Report on the Meeting of the Second Ad Hoc Committee on the TB Epidemic*, Stop TB Partnership, 2003.
WHO	*Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health,* Commission on Social Determinants of Health, Discussion paper, Draft 5 May 2005.
WHO	*Addressing Poverty in TB Control: Options for National TB Control Programmes,* Geneva*, 2005*
WHO	*Costs of Scaling up Priority Health Interventions in Low-Income and selected Middle-income Countries: Methodology and Estimates,* Commission on Macroeconomics and Health, CMH Working Paper Series, Paper No. WG5:18. October 2001.
WHO	*Progress Report on the Global Plan to Stop Tuberculosis.* WHO: Stop

TB Partnership, 2004. p. 15

WHO   *The World Health Report 2005: Make Every Mother and Child Count*
(Geneva, Switzerland: 2005) 79-101.

WHO   *The Executive Summary of The Lancet Neonatal Survival Series*
(Geneva, Switzerland:) http://www.who.int/child-adolescent-
health/publications/NEONATAL/Lancet_NSS.htm.

WHO   *Treating 3 Million by 2005: Making it Happen: The WHO Strategy*
(Geneva, Switzerland: 2003).

WHO   *Progress on Global Access to HIV Antiretroviral Therapy: An update on
"3x5"* (Geneva, Switzerland: 2005).

WHO   *Everybody's Business, WHO's Health Systems Strengthening Strategy,*
Draft 26 Sept. 2006.

WHO   *Health Systems, Report by the Secretariat, 120th Session of the Executive
Board,* 8 January 2007.

WHO   *What are the advantages and disadvantages of restructuring a health
care system to be more focused on primary care services?,* Health
Evidence Network, WHO (Europe), January 2004.

WHO   *The Maputo Report, WHO support to countries for scaling up essential
interventions towards universal coverage in Africa,* WHO Regional
Office for Africa (AFRO), 2006.

Wolfowitz P.   *Charting a Way Ahead: The Results Agenda*, 2005 Annual Meetings
Address, The World Bank Group, Washington DC, September 24, 2005.

World Bank   *Who Would Gain most from Efforts to Reach the Millennium
Development Goals for Health?* An Inquiry into the Possibility of
Progress that Fails to Reach the Poor, December 2002.

World Bank   *Reaching the Poor with Health, Nutrition, and Population Services:*
What Works, What Doesn't, and Why, 2005.

World Bank   *Priorities in Health,* 2006.

World Bank   *World Development Indicators,* 2006.

World Bank   *Social Exclusion and Poverty Reduction in Latin America and the
Caribbean*, 2001.

World Bank   *Beyond Survival: Protecting Households from Health Shocks in Latin
America,* 2006.

World Bank   *Scaling-Up the Impact of Good Practices in Rural Development*
(Washington, D.C.: 2003).

World Bank   *Healthy Development, The World Bank Strategy for Health, Nutrition,*
                                    and Population Results, April 24, 2007.