



**SELECTED ANNOTATED BIBLIOGRAPHY ON
PRIMARY HEALTH CARE
IN THE AMERICAS**

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TABLE OF CONTENTS

INTRODUCTION AND METHODS.....2

I. ALMA ATA AND PRIMARY HEALTH CARE PRINCIPLES (BACKGROUND DOCUMENTS, CONFERENCE REPORTS, AND CRITIQUES

A. PHC DOCUMENTS, POLICIES, AND REFLECTIONS ON ALMA ATA 4

B. PREVIOUS PHC MEETINGS 9

C. CRITIQUES OF PHC 12

II. REVIEW OF THE EVIDENCE BASE ON PRIMARY HEALTH CARE

A. IMPACT OF PRIMARY HEALTH CARE ON HEALTH OUTCOMES..... 15

B. PRIMARY HEALTH CARE PRINCIPLES IN ACTION

 1. Community orientation..... 40

 2. Comprehensiveness 52

 3. Equity..... 58

 4. Family orientation70

 5. Coordination / Integration 77

 6. Intersectorial action 84

 7. Person focus / Longitudinality 91

 8. Accountability96

C. PRIMARY HEALTH CARE AND HEALTH REFORM

 1. Lessons learned from health reform 101

 2. Managing change 121

 3. Primary care-led systems 129

 4. Financing and Policy 136

 5. Human Resources 149

 6. Millennium Development Goals 155

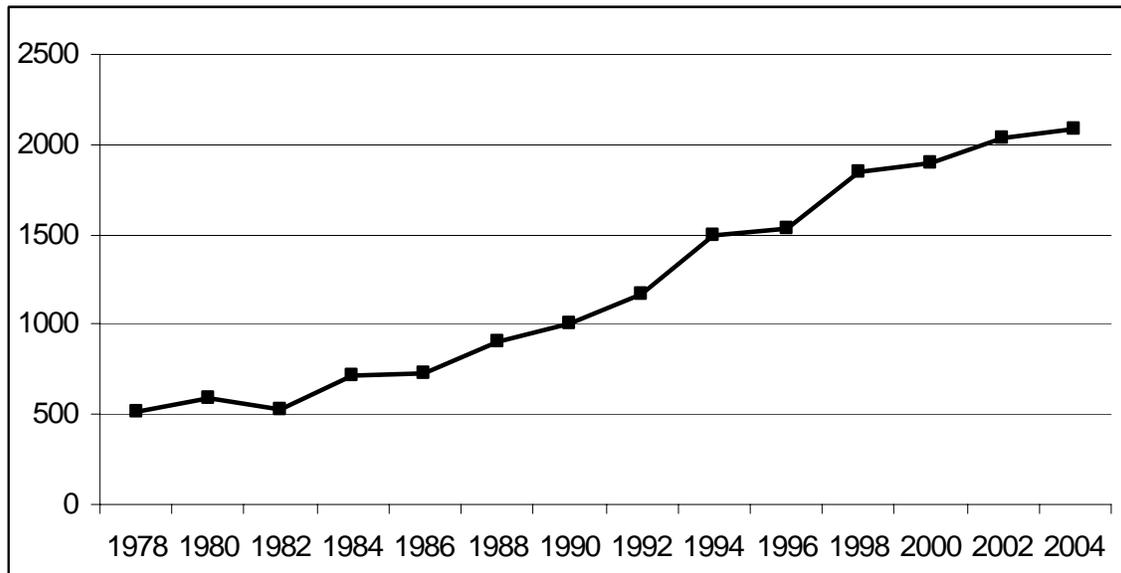
III. RESOURCES 160

INTRODUCTION AND METHODS

In order to review the evidence base for primary healthy care (PHC), we conducted a systematic review of the literature, including peer-reviewed journal articles, international organization and government official publications and working documents, statements and policy recommendations from international meetings and advocacy groups, and reports of field experiences from a variety of international, government, and non-governmental organizations. PubMed and Bireme databases were searched for all articles containing “primary health care” in English, Spanish, Portuguese or French. Search terms were also combined with the PHC dimensions (e.g. access, equity, first contact/gate-keeping, comprehensiveness, coordination, integrated care, community participation, family orientation). All articles and publications identified were culled to reveal additional references. The PAHO/WHO PHC working group was also solicited to identify key publications or authors that they believed were essential for inclusion in the literature review.

The potential literature for review was vast. A search of the term “primary health care” on the National Library of Medicine’s PubMed database results in 33,973 hits (see Graph 1). In order to narrow the scope, the literature reviewed here focuses mainly on research undertaken during the past decade and emphasizes experiences from the countries of the Americas. The final selection of articles referenced here was made based on a) the technical quality of the research presented; b) the historic importance of the document; and c) the ability of the article to illustrate a specific dimension or lessons learned for the renewal of PHC in the Americas. The objective was to illustrate the diversity of PHC experiences while taking stock of the existing evidence-base. In general, where literature reviews or meta-analyses were available they were selected for review rather than abstracting every individual article contained within them.

Graph 1: Number of new articles published on “primary health care” by year indexed in the Pubmed database.



This annotated bibliography contains a total of 178 references, including articles, papers, books, book chapters, conference proceedings, and electronic resources. The 156 references in the evidence-base section of the bibliography were categorized according to the study type. Experimental studies, quasi-experiments, including panel data, and time series or trend analyses were coded as type A; cross sections with control, including pre-post or multivariate controls, were coded as type B; systematic literature reviews were coded as type C; cross-sectional studies without control were coded as type D; observational studies, including qualitative designs were coded as type E; and policy paper, non-systematic reviews and conceptual papers were coded as type F. Table 1 below shows the count for the number of articles coded within each category.

Table 1: Number of articles reviewed, by type of study.

Study type	Number of studies
A (Experiment, quasi experiment, or time series analysis)	12
B (Cross-section with control)	29
C (Systematic literature review)	19
D (Cross-section without control)	20
E (Observation)	33
F (Policy paper or non-systematic review)	43
<i>Total</i>	<i>156</i>

The distribution of studies indicated that there are few references in the category with the higher standards of external validity, with 12 experiments, quasi experiments, or time series analyses that allow for stronger claims of causality about the impact of PHC. A considerable number of cross-sectional studies with controls were identified, and the 29 studies in this category provide interesting conclusions about the impact of primary health care in situations where experimental designs were likely not possible. The 19 systematic literature reviews, including meta-analytical designs, serve as a summary of a wide pool of experiences and results. Within the next two categories, the 20 cross-sectional studies without control and the 33 observational studies offer a more descriptive characterization of PHC approaches in the Americas, one that provides in-depth information about the experiences that were investigated. Finally, 43 policy reviews, non-systematic reviews, or conceptual papers offer a variety of arguments, points of view, and insights about approaches to research and/or reform of PHC in the Americas.

I. ALMA ATA AND PRIMARY HEALTH CARE PRINCIPLES (BACKGROUND DOCUMENTS, CONFERENCE REPORTS, AND CRITIQUES)

A. PHC DOCUMENTS, POLICIES, AND REFLECTIONS ON ALMA ATA

Cueto, M. (2004). The origins of primary health care and selective primary health care. *Am J Public Health, 94*(11), 1864-1874.

The article provides a historical account “of the role played by the World Health Organization and UNICEF in the emergence and diffusion of the concept of primary health care during the late 1970s and early 1980s” (1864). The article presents a detailed analysis of the evolution of the primary health care approach within the World Health Organization and UNICEF, including their political contexts, main leaders, methodologies and technologies. The author describes the debates about primary health care and documents the development of the concept of “selective primary health care”, which was originally intended to be a temporary strategy for the controlling diseases in developing country and was first described in a paper by Julia Walsh and Kenneth Warren in 1979. The selective primary care approach is more restricted than the comprehensive view of PHC detailed in Alma Ata. Selective PHC focuses on key interventions for maternal and child health such as growth monitoring, oral rehydration techniques, breast-feeding, immunization, food supplementation, female literacy, and family planning (GOBI-FFF).

Gérvás, J. (2004). Atención Primaria de Salud en Europa: tendencias a principios del siglo XXI. Una reflexión con motivo de los XXV años de la Declaración de Alma Ata. *SEMERGEN, 30*(5), 245-257. Available: <http://www.semergen.es/semergen2/cda/nav/02/2050.jsp>

This article describes the primary health care systems of the countries in the European Union with respect to the roles of the various health professionals (general physicians, primary health care teams, pharmacists, and nurses), medical practice (drugs, medical technology, evidence based medicine), and organizational, political and institutional aspects (coordination, decentralization, privatization, and participation). The author advocates for primary care’s prominence on the political agenda, and argues that the general physician plays a central role in primary health care systems.

Pan American Health Organization. (2004). *Los Objetivos de Desarrollo del Milenio y las Metas de Salud*. Washington, DC: PAHO.

Available: <http://www.paho.org/english/gov/ce/ce134-10-e.pdf>

This document argues that health has an essential role within the Millennium Development Goals Compact and that the Pan American Health Organization can use the leverage provided by this mandate to boost investments in health, and promote the health agenda among political opinion leaders in its member states.

Pan American Health Organization. (2003). *Atención Primaria de Salud en las Américas: Las Enseñanzas Extraídas a lo Largo de 25 Años y los Retos Futuros*. Washington, DC: PAHO.

Available: http://www.who.int/chronic_conditions/primary_health_care/relateddocs/en/

This document analyzes the development of primary health care strategies in the Americas in the 25 years that followed the declaration of Alma Ata. The adoption of strategies focused on primary health care, as defined in the declaration, is thought to have positively impacted health outcomes, but the document also suggests that given the demographic and epidemiological changes since Alma Ata, there are new challenges for the organization and financing of primary health care. The document claims that the adjustment of health services towards health promotion and disease prevention can be achieved by restructuring the health care model, assigning appropriate functions to each level of government, integrating public health services with personal health services, focusing on families and communities, and creating an institutional framework with incentives to improve the quality of services. The document recommends resolutions to be adopted by the Executive Committee of PAHO in order to renew the commitment of the member states to the primary health care approach.

Tejada de Rivero, D. (2003). Alma-Ata Revisited. *Perspectives in Health*, 8(2), 2-7.

Available: http://www.paho.org/English/DD/PIN/Number17_index.htm

This article describes the antecedents and preparations for the 1978 Alma-Ata Conference, and suggests that some of the main conclusions of the meeting have been misinterpreted. The author argues that the conceptualization of “primary health care” has been biased towards a primitive, simplistic and cheap approach to health care, rather than the integrated, intersectorial and comprehensive definition recommended in the Alma Ata declaration. Despite this common misunderstanding, the author stresses that genuine primary health care – decentralized, comprehensive and integrated – is still an important tool for development.

World Health Organization. (2003). *A Global Review of Primary Health Care: Emerging Messages*. Geneva: WHO.

This report points out that despite the important changes that have taken place since primary health care (PHC) became a central policy for the World Health Organization in 1978, PHC is still recommended as a cornerstone for reform of health systems in both developed and developing countries. In this document, PHC is defined by sets of principles, core activities, and strategic imperatives. The set of principles includes community orientation, intersectorial coordination, integration and comprehensiveness of care, and reliance on a variety of health workers as well as traditional practitioners. The set of activities includes education, promotion of nutrition, supply of water and sanitation, maternal and child care, immunization, prevention of diseases, treatment of diseases, and provision of drugs. The set of imperatives includes focusing on the disadvantaged, focusing on the major determinants of health outcomes, developing financially sustainable systems, and integrating primary health care with other policy domains. Although most evaluations of PHC seem to indicate that it is associated with positive outcomes, the report points out that little rigorous evaluation research has been conducted in this field and therefore the evidence base requires strengthening. The report proposes three scenarios for further development of PHC in the various member countries of WHO: (a) completing implementation where it has failed; (b) strengthening PHC to address new issues created by demographic and socioeconomic change; and (c) locating PHC in a broader agenda of social justice and human rights.

World Health Organization. (2003). Health Systems: principled integrated care. In World Health Report 2003. Chapter 7. In WHO (Ed.), *World Health Report 2003*. Geneva: WHO.
Available: <http://www.who.int/entity/whr/2003/chapter7/en>

This chapter analyses how health systems based on primary health care may deal with current epidemiological, demographic and socioeconomic challenges. Primary health care is understood as “involving both core principles and a variable set of activities” (107), and the most important principles are: “universal access to care and coverage on the basis of need; commitment to health equity as part of development oriented to social justice; community participation in defining and implementing health agendas; intersectorial approaches to health” (107). The chapter points out four challenges to systems based on primary health care: the global crisis in health workforce, the development of health information systems, the financing of health systems, and the central role of governments in terms of stewardship.

Pan American Health Organization. (1998). *Symposium on National Strategies for Renewing Health-for-All. Final Report*. Paper presented at the Symposium on National Strategies for Renewing Health-for-All, Washington, DC.
Available: <http://newweb.www.paho.org/English/GOV/CE/HFA-symposium-e.pdf>

The Symposium was organized by the Pan American Health Organization with an audience of participants from 19 countries from the Western Hemisphere, and its main objective was to discuss tools for the prevention agenda for the period between 2000 and 2010. The main recommendations of the symposium were: (a) health improvements are best achieved by collaboration and cooperation between local, regional and national levels of government; (b) health interventions should be integrated, intersectorial, and based on major health determinants; and (c) collaboration among bilateral and international agencies is an important tool to achieve health goals.

Pan American Health Organization. (1997). Third Evaluation of the Implementation of the Strategy for Health for All by the Year 2000 - Regional Summary. Washington, DC: PAHO. Available: <http://www.paho.org/English/GOV/CD/doc170.pdf>

This document summarizes the data collected through the Pan American Health Organization's tracking of regional progress towards the Health for All by the Year 2000 goal. The document states that while democratization advanced in most countries, economic development lagged, resulting in more poor people in the region. In terms of health resources, despite insufficient planning and organization, some advances had been observed with regards to decentralization, social participation and inter-sectoral coordination. The general trend was toward increased coverage, but inequalities in access were still an important issue. The progress in health status was mixed, with some achievements in lowering infant mortality and mortality from vaccine preventable diseases, at the same time that tuberculosis, malaria and dengue persisted. Large gaps in health indicators were observed both across and within countries. Given this context, important actions were still needed if the Health for All by the Year 2000 goal was to be achieved. Main policy recommendations include: social participation, closer connections between the health of the population and the environment, collaboration across social actors and sectors, harmonization of social policies, cooperation between countries and regions, use of existing capabilities to achieve health goals, decentralization and local capacity building, and strengthened leadership.

Tarimo, E., & Webster, E. G. (1997). *Primary health care concepts and challenges in a changing world. Alma-Ata revisited*. Unpublished manuscript, Geneva. Available: http://whqlibdoc.who.int/hq/1997/WHO_ARA_CC_97.1.pdf

This paper argues that despite the attention that has been given to primary health care since Alma Ata, its meaning is often misinterpreted. The authors argue that the main misinterpretations of primary care are: "1. Primary health care is only community-based care. 2. Primary health care is only the first level of contact of individuals and communities with the health system. 3. Primary health care is only for poor people in developing countries, who cannot afford real doctors. 4. Primary health care is a core set of health services, often referred to as the eight (or nine or ten...) essential elements of primary health care. 5. Primary health care is concerned only with rural areas, simple, 'low-tech' interventions, and health workers with limited knowledge and training and is opposed to doctors, hospitals, and modern technology. 6. Primary health care is cheap" (6-7). Instead of these common interpretations, the authors define primary health care as an approach based on four principles: "(i) universal accessibility and coverage on the basis of need, (ii) community and individual involvement and self-reliance, (iii) intersectorial action for health, and (iv) appropriate technology and cost-effectiveness in relation to available resources" (3). Since Alma Ata, results have been mixed: there have been improvements in health, but some of the least developed countries have bypassed the PHC movement, and still need external help. The authors further argue that strategic points should be revised to include: partnerships for new social contracts; targeting for greater equity; higher quality and effectiveness of services; and the setting of new priorities. The authors suggest that too much attention has been focused on national systems to the detriment of the local levels.

Pan American Health Organization. (1985). Primary Care in the Transformation of the Health Services System. Washington, DC: PAHO.

This report summarizes the discussions held in October, 1985 in Santiago, Chile, at a PAHO meeting on the strategy of primary care for the transformation of health systems. The meeting emphasized the need for further advances after Alma Ata if the goal of health for all was to be reached by the year 2000. The primary health care strategies of 24 countries are described in the document, and the consolidated report lays out recommendations with regards to health services coverage, institutional design, as well as human and physical resources of the health sector.

B. PREVIOUS PHC MEETINGS

Reunión del Sector Salud de Centroamérica y República Dominicana. (2004, July 7-9, 2004). *Declaración de Boca Chica*. Declaration prepared at the 20th Reunión del Sector Salud de Centroamérica y República Dominicana.

Available: http://www.paho.org/Spanish/DD/PIN/Boca_Chica.pdf

The main outcome of the meeting was a document entitled the “Declaration of Boca Chica”. The main purpose of the meeting was to mark the 25th Anniversary of the Alma Ata Conference, and to renew the commitment to implement the recommendations of health for all. The audience included Ministers and Vice-Ministers of Health of Central American countries and the Dominican Republic. The declaration reaffirmed the commitment of the participating countries to universal, unified and integrated health systems based on the primary health care approach. The participating countries also committed themselves to the advancement of institutional frameworks to support primary health care and to pursue regional collaboration.

Interamerican Development Bank, World Bank, & UN Development Program and the Economic Commission for Latin America and the Caribbean. (2003, November 16-17, 2003). *Brasilia Declaration: Proposal for Implementation the Millennium Development Goals*. Declaration prepared at the conference Promoting political consensus around the implementation of the Millennium Development Goals in Latin America and the Caribbean, Brasilia, Brazil.

The Interamerican Development Bank, the World Bank, the UN Development Program and the Economic Commission for Latin America and the Caribbean organized the meeting named “Promoting political consensus around the implementation of the Millennium Development Goals (MDG’s) in Latin America and the Caribbean”. The audience included representatives from governments, international organizations, the civil society, and the private sector. The main outcome of the conference was a document entitled “Brasilia Declaration: Proposal for Implementing the Millennium Development Goals”, containing recommendations for governments, legislators, civil society and the international community. For governments, priorities included a socioeconomic platform to eradicate poverty, promotion of debates on the MDG’s, increasing public sector performance, creating information systems, and mobilizing multiple levels of government and society. For legislators, priorities included dissemination of information on the MDG’s and supporting development through an appropriate institutional framework. For civil society, main recommendations were increased participation and oversight, as well as cooperation with various levels of government. For the international community, recommendations include fostering collaboration, supporting technological development and making more effective contributions through development aid.

Pan American Health Organization. (2003). *Primary Health Care Policy Review. Report from a Workshop held in Brasilia 29th - 30th November 2001*. Washington, DC: PAHO.

The Pan American Health Organization organized the Regional Workshop with the purpose of reviewing and updating primary health care (PHC) strategies, as well as providing outcomes for a document to be named "Emerging Conclusions". Some of the main recommendations of the workshop were that despite the significant changes in health, socioeconomic, and demographic patterns in the region, PHC was still considered a relevant approach to address the increasing needs in these countries. Implementation of PHC, however, has been to a difficult task. The characteristics of the most successful experiences were "adaptability, appropriate culture, and a clear focus." Inter-sectoral collaboration was also pointed out as a key element of successful PHC strategies. Given the obstacles for implementation, the report suggests that WHO can play an important role by providing technical assistance, fostering collaboration, and networking.

Confederacion Iberoamericana de Medicina Familiar, Sociedad Española de Medicina de Familia y Comunidad, & Pan American Health Organization. (2002, May 14-17, 2002). *Proceedings of the I Cumbre Iberoamericana de Medicina Familiar*. I Cumbre Iberoamericana de Medicina Familiar, Sevilla, España.

Available: <http://www.sovemefa.org/documentos.htm>

The Iberian-American Summit on Family Health was organized by the Pan American Health Organization, the Spanish Society for Family and Community Health, and the Iberian-American Society for Family Health, and the targeted audience was composed of members of Health Ministries, Medical Schools, and practitioners of family health. Five documents were produced from the discussions held on the conference, including four technical reports and the Declaration of Seville. Main recommendations include: 1) The public sector must guarantee health coverage for all citizens that is equitable, efficient, dignified, and sustainable and citizens' should be involved in defining health systems goals and policies; 2) The health system must assure longitudinal, integrated, and comprehensive care based on PHC; 3) PHC should include first contact care organized around teams of primary care and family physicians seamlessly integrated into a reference level to address conditions that cannot be treated at the primary level; 4) PHC must serve as the first contact to the health system, be person (and not disease) focused, and individuals must be treated within their family and community context; 5) Physicians working in PHC should be properly trained and certified, and this should include interdisciplinary and public health techniques; 6) PHC has potential to re-orient healthcare spending and improve the quality of health services by making use of evidence, information, and performance measurements; 7) Undergraduate and graduate medical education must be expanded to include the latest approaches to PHC. This process should be guided through an international task force. The "Declaration of Seville" summarizes these recommendations.

World Health Organization. (1986, November 1986). *Ottawa Charter*. Paper presented at the First International Conference on Health Promotion, Ottawa, Canada.

Available: http://www.euro.who.int/AboutWHO/Policy/20010827_2

The main outcome of the conference was a declaration entitled the "Ottawa Charter". The discussions of the meeting focused primarily on the needs of the industrialized countries. The main recommendations of the Ottawa Charter were designed to complement primary health care and to further refine an approach to health promotion, including: (a) establishing the necessary prerequisites of the advocacy for health, enabling people to make healthy choices, and coordinated action between various sectors (mediation); and (b) taking appropriate action, by building public health policy, creating supportive environments, strengthening community and personal skills, and reorienting services.

World Health Organization. (1978). Primary Health Care. Report of the International Conference on Primary Health Care. Alma Ata, USSR, 6-12 September, 1978. Geneva: WHO.

Available: http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf

The Declaration of Alma-Ata offers a widely known definition of Primary Care, which can be summarized as follows: (1) it evolves from economic, sociocultural and political characteristics of each country, and is based on sound research; (2) it provides promotive, preventive, curative and rehabilitative health services; (3) it includes education, nutrition, sanitation, maternal and child care, immunization, prevention, treatment, and provision of drugs; (4) it involves coordinated efforts of various sectors; (5) it promotes community and individual participation and self-reliance; (6) it is integrated to supportive referral systems; and (7) it relies on various health workers and traditional practitioners, as needed, trained to work as teams.

C. CRITIQUES OF PHC

Navarro, V. (2004). The World Situation and WHO. *Lancet*, 363, 1321-1323.

This article offers a critical view of the agenda of the World Health Organization in the last decades. The author argues that the health policy agenda promoted by WHO, and international organizations such as the World Bank, have: reduced the amount of public funding for health services, stimulated privatization and models of market competition in health, and focused on categorical health interventions that are less effective than comprehensive approaches. The author calls for a commitment of the WHO and its member countries to actively defend health as a human right.

People's Health Movement (Ed.). (2003). *Health for All Now! Revive Alma Ata!! The Alma Ata Anniversary Pack*. Unnikrishnan, Bangalore (India): People's Health Movement.
Available: www.phmovement.org or www.iphcglobal.org

This volume is a collection of statements papers edited by the People's Health Movement to mark the 25th anniversary of the Alma Ata Declaration. The editors argue that while a many interesting initiatives were put together in the years after Alma Ata, the primary health care message has been distorted more recently as the result of changing visions of international health agencies, as well as the effects of neo-liberalism and globalization. Therefore, the document advocates increased support for the goal of "health for all" and for the Peoples Health Charter, issued in 2000. The main messages contained in the charter are the understanding of health as a human right, and the necessity of tackling the broader determinants of health, including social, economic, political, and environmental dimensions.

Sanders, D. (2000, December 2000). *The Medicalization of Health Care and the challenge of Health for all*. Paper presented at the People's Health Assembly, Dhaka, Bangladesh.
Available: phmovement.org/about/background3.html

The author argues that results towards the "Health for All" goals have been mixed: while the advances on the use of positive technologies and programs have reduced the impact of certain diseases, progress on the social mobilizing and intersectorial focus of primary health care have lagged behind. The paper further advocates that development policies should be more "inclusive, dynamic, transparent and supported by legislation and financial commitments" (26), if they are to have actual impacts on health. The author also stresses the need for effective decentralization approaches, local capacity-building, engagement of communities and health, and a more active role of the World Health Organization in supporting the implementation of primary health care, as originally defined in the Alma Ata declaration.

Cunningham, A., & Andrews, B. (1997). Introduction. In A. Cunningham & B. Andrew (Eds.), *Western Medicine as Contested Knowledge*. Manchester: Manchester University Press.

Lee, S. (1997). WHO and the developing world: the contest for ideology. In A. Cunningham & B. Andrews (Eds.), *Western medicine as contested knowledge*. Manchester: Manchester University Pres.

The introductory chapter of the book “Western Medicine as Contested Knowledge” was written by its editors and offers a critical interpretation of the relationships between imperialism and western medicine. The editors argue that western medicine has had deleterious effects to the previously colonized world, and interprets scientific medicine through a social constructionist approach as being medicine of domination.

In Chapter 1 of the same book, Sung Lee describes the different stages in the relationship between the World Health Organization and the developing world. Lee argues that initially the WHO was based on a paternalistic, donor-recipient relationship of diffusion of Western medicine in the developing world, funded by Western countries. According to the author, this approach was challenged in the 1970s as being neo-imperialistic, and the effectiveness of China’s experience in improving health conditions of its population with an alternative approach played a major role in the introduction of primary health care as a new medical ideology. The Chinese approach eventually led to a new WHO ideology “that methods of primary care must not be imposed on the people but must come *from* the people, and that, (...) such methods were inseparable from politics at large” (39). Within this context of change, the Soviets pushed for an international conference on health that would “show participants what had been done in that connection in its country in the past 50 years” (42), which stressed further the ideological message of the primary health care approach. The author emphasizes the politics that marked the change in WHO recommendations towards primary health care, which generated conflicts among the interests of pharmaceutical companies, medical professionals, as well as political leaders of developing countries, socialist countries, and Western industrialized nations. The author concludes that the push of China and the USSR were the main drivers of change in WHO assumptions from reliance on Western professional medicine towards a “politicized rhetoric of health” (43) focused on the promotion of primary health care.

Werner, D. (1975). *Primary Healthcare and the Temptation of Excellence*. From Newsletter from the Sierra Madre. David Werner papers.

Werner, D. (1995). *Who killed primary healthcare?* David Werner papers.

Available: <http://www.healthwrights.org/dwpapers.htm>

In “*Primary Healthcare and the Temptation of Excellence*”, David Werner describes the experience of a small clinic at the Sierra Madre region with the reorientation of their health care strategy. The clinic, which was initially focused on providing the best treatment possible to poor communities, changed their strategy to focus on a preventive model including the training of promoters of health. The author includes anecdotes and reports of experiences in the clinic, and argues for the importance of reliance on local knowledge and community participation for successive primary health care.

In “*Who killed primary healthcare?*”, David Werner offers a critique of the implementation and, in the author’s opinion, distortion of the “health for all” approach announced at the Alma Ata Conference. According to the author, the experience of poor and less developed countries with primary health care worsened the health of the poorest. In particular, the author claims that three developments were to blame: first, the change from comprehensive to selective primary healthcare targeted to the poor made them dependent on industrialized kits such as pre-made ORT packets or imported foods; second, the adoption of user charges as recommended by economic adjustment programs reduced the use of health centers among the poorest; and third, the recommended institutional reform of the health sector ended up transferring costs to families, reducing government spending, and privatizing services.

II. REVIEW OF THE EVIDENCE BASE ON PRIMARY HEALTH CARE

A. IMPACT OF PRIMARY HEALTH CARE ON HEALTH OUTCOMES

Lewis, M., Eskeland, G., & Traa-Valerezo, X. (2004). Primary health care in practice: is it effective? *Health Policy*, 70, 303-325.

Country/Region: El Salvador

Study Design: D (Cross-section without control). Mixed methods cross-sectional study, combining qualitative and quantitative approaches.

Study Population: population from rural areas and small villages in El Salvador.

Primary Care Measures:

Presence of health promoter in the village, divided by type of provider (government or NGO); self-reported preference for the use of health promoters' advice.

Primary Health Care Definition:

The study uses a definition of primary health case based on the role of the community workers providing a package of services, defined as follows: "the health promoter, or community health worker (CHW), the minimally trained health provider who serve rural communities with a package of 'basic services'" (304).

Impact/Result:

Based on the results of focus group surveys, and regression models, the authors argue that "[h]ouseholds do not value the community health workers, and prefer high cost private care, even the poorest families, because of the lower waiting times and higher probability of successful treatment. Similarly, higher level public level facilities – health enter and hospitals – are preferred because they are less costly in terms of time as they offer "one stop shopping" and do not require multiple visits, and treatment success is higher than among health posts, health units or community health workers" (303).

It should be noted, however, that the article does not offer evidence of the impact of primary health care on health outcomes, compared to groups that did not receive primary health care interventions.

Rosero-Bixby, L. (2004). Evaluación del impacto de la reforma del sector de la salud en Costa Rica mediante un estudio cuasiexperimental. *Revista Pan Americana de Salud Publica*, 15(2), 94-1003.

Country/Region: Costa Rica

Study Design: A (Experiment, quasi experiment, or time series analysis). Time-series analysis of national data, pre-post intervention. Comparison of three groups based on timing of adoption of reform.

Study Population: Population of Costa Rica (children and adults).

Primary Care Measures: Adoption of health sector reform in the district, number of years since health sector reform has been implemented.

Primary Health Care Definition: No explicit definition of primary health care, but the health sector reform was focused on the “primary level of care”.

Impact/Result: Reform of the primary level of health care significantly reduced mortality in adults (2%) and in children (8%). For every 5 additional years of reform, child mortality was reduced by 13%, and adult mortality was reduced by 4%. The percentage of population with difficult access to health services decreased 15% in the areas with reform, while it decreased 2% in the areas without the reform.

Shi, L., Macinko, J., Starfield, B., Xu, J., Regan, J., Politzer, R., et al. (2004). Primary care, infant mortality, and low birth weight in the states of the USA. *J Epidemiol Community Health*, 58(5), 374-380.

Country/Region: States of the USA.

Study Design: A (Experiment, quasi experiment, or time series analysis). Pooled cross-sectional, time-series analysis of secondary data.

Study Population:

Primary Care Measures: “Primary care is measured using the number of office based primary care physicians per 10 000 population in each state.” (374)

Primary Health Care Definition: “The term ‘primary care physicians’ refers to doctors of medicine working in family medicine, general practice, internal medicine, and pediatrics who were in active office based care.” (374)

Impact/Result: “Primary care was negatively associated with infant mortality and low birth weight in all multivariate models ($p < 0.0001$). The association was consistent in contemporaneous and time lagged models. Although income inequality was positively associated with low birth weight and infant mortality ($p < 0.0001$), the association with infant mortality disappeared with the addition of sociodemographic covariates.” (374)

Araya, R., Rojas, G., Fritsch, R., Gaete, J., Rojas, M., Simon, G., et al. (2003). Treating depression in primary care in low-income women in Santiago, Chile: a randomised controlled trial. *Lancet*, 361(9362), 995-1000.

Country/Region: Chile

Study Design: A (Experiment, quasi experiment, or time series analysis). Randomized trial to test “stepped care” intervention.

Study Population: 240 adult female primary care patients with major depression.

Primary Care Measures: Stepped care. A multi-component intervention by non-medical health worker, administered in the primary care setting.

Primary Health Care Definition: No explicit definition of primary health care is given. The article focuses on “primary-care clinics”.

Impact/Result: At 6-months' follow-up, 70% (60-79) of the stepped-care compared with 30% (21-40) of the usual-care group had recovered (Hamilton depression rating scale score of <8) suggesting that this program could effectively treat depression in primary care settings.

Macinko, J., Starfield, B., & Shi, L. (2003). The contribution of primary care systems to health outcomes within Organization for Economic Cooperation and Development (OECD) countries, 1970-1998. *Health Serv Res*, 38(3), 831-865.

Country/Region: 18 wealthy OECD countries (including USA and Canada).

Study Design: A (Experiment, quasi experiment, or time series analysis). Pooled, cross-sectional time series analysis of secondary data using fixed-effects regression.

Study Population: Primary care systems.

Primary Care Measures: A primary care system score was developed, including the following dimensions: existence of regulation, method of financing, type of primary care provider, access, longitudinality, first contact, comprehensiveness, coordination, family focus, community orientation. Control variables included doctors per thousand people, per capita income, proportion of elderly, alcohol and tobacco consumption.

Primary Health Care Definition: "Primary care is defined as that level of the health system that provides the majority of care to the population (World Organization of National Colleges, Academies and Academic Associations of general Practitioners / Family Physicians 1991)." (838) Primary care systems include structural characteristics (health system finance, distribution of resources, physician inputs, accessibility, and longitudinality) and practice characteristics (first contact, coordination, comprehensive care, longitudinality, and family and/or community orientation).

Impact/Result: The main findings of the study were: "The strength of a country's primary care system was negatively associated with (a) all-cause mortality, (b) all-cause premature mortality, and (c) cause specific premature mortality from asthma and bronchitis, emphysema and pneumonia, cardiovascular disease, and heart disease ($p < 0.05$ in fixed effects, multivariate regression analyses). This relationship was significant, albeit reduced in magnitude, even while controlling for macro-level (GDP per capita, total physicians per one thousand population, percent of elderly) and micro-level (average number of ambulatory care visits, per capita income, alcohol and tobacco consumption) determinants of population health.

Moore, D., Castillo, E., Richardson, C., & Reid, R. J. (2003). Determinants of health status and the influence of primary health care services in Latin America, 1990-98. *Int J Health Plann Manage*, 18(4), 279-292.

Country/Region: 22 countries in Latin America

Study Design: A (Experiment, quasi experiment, or time series analysis). Panel study (22 countries over 9 years).

Study Population: Under 5 mortality.

Primary Care Measures: Vaccination coverage, maternal health, use of ORT and breastfeeding, physicians supply, health expenditures, female literacy, GNP, safe water.

Primary Health Care Definition: Five out of the eight aspects of PHC as defined in Alma Ata were included in this article: vaccination, access to maternal health care, safe water, nutrition, and treatment of common diseases. Education, prevention and control of local endemic diseases and provision of essential drugs are the remaining three aspects of PHC that were left out of the analysis due to lack of data.

Impact/Result: The study found five main variables to be associated with reduced under-five mortality. female literacy, BCC vaccination rate, access to safe water, use of oral rehydration therapy, and GNP per capita. GNP was found to have the weakest magnitude of association with health: a reduction in under five mortality of 5/1,000 was associated with: an increase of 4.76% in female literacy rate; an increase of 8.06% in BCG vaccination; and increase of 11.4% in access to safe water; and increase of 22.7% in use of oral rehydration therapy; and an increase of \$1923 in GNP.

Shah, B. R., Gunraj, N., & Hux, J. E. (2003). Markers of access to and quality of primary care for aboriginal people in Ontario, Canada. *Am J Public Health, 93*(5), 798-802.

Country/Region: Canada (Ontario)

Study Design: B (Cross-section with control). Cross-sectional design; aboriginal people in northern Ontario are compared to the following groups: a group of people that live in similar conditions of geographical isolation; a group of people who have similar socioeconomic status; and the general population of Canada.

Study Population: Aboriginal and nonaboriginal people in Ontario that live in conditions of isolation.

Primary Care Measures: The following measures were used as indicators of adequacy of primary care: rates of hospitalization for ambulatory-care sensitive conditions (ACS), and utilization of referral care-sensitive procedures (RCS).

Primary Health Care Definition: Primary health care is defined as having “a central role in delivering preventive services, in diagnosis, in long-term disease management, and in coordinating specialty services as a gatekeeper” (798), and it vertically integrated primary health care is considered as central to a well-functioning health system.

Impact/Result: All of the findings indicated below are relative to admission rates in the general population of Canada, which can be interpreted as having the value of 1.00. The findings indicated that relative ACS hospitalization rates (which are primary health care sensitive) were 2.54 for the aboriginal population, 1.50 for the population used as geographical control group, and 1.14 to the population used as socioeconomic control group. The relative RCS procedure utilization rates (which are specialized health care sensitive) were 0.64 for the aboriginal population, 0.91 for the population used as geographical control group, and 1.00 to the population used as socioeconomic control group. Relative admission rates for insensitive procedures were 1.39 for the aboriginal population, 1.23 for the population used as geographical control group, and 1.03 to the population used as socioeconomic control group. The authors interpret the findings of high ACS hospitalization rates and low RCS procedure utilization rates as evidence that “northern Ontario’s aboriginal residents have insufficient or ineffective primary care” (798).

Conill, E. M. (2002). [Primary care policies and health reforms: an evaluative approach based on an analysis of the Family Health Program in Florianopolis, Santa Catarina, Brazil, 1994-2000]. *Cad Saúde Pública*, 18 Suppl, 191-202.

Country/Region: Brazil

Study Design: E (Observation). Qualitative study (analysis of administrative data, key informant surveys, purposive sample of providers).

Study Population: Families using the family health program services.

Primary Care Measures: Access, human resources, comprehensiveness of care, continuity of care, referrals.

Primary Health Care Definition: The article focuses on the Family Health Program, defined as ["a model of health care that should promote and protect the health status of the individual, the family, and the community, using health care teams that provide services at the local clinic and the community, at the level of health care"] (in Portuguese). (193)

Impact/Result: The study documents characteristics and the policy environment of the family health program. It suggests that the program has improved access for poor families, improved the comprehensiveness of care offered in primary care, but the study does not correlate these changes with changes in health outcomes.

Emond, A., Pollock, J., Da Costa, N., Maranhao, T., & Macedo, A. (2002). The effectiveness of community-based interventions to improve maternal and infant health in the Northeast of Brazil. *Rev Panam Salud Publica*, 12(2), 101-110.

Country/Region: Brazil (Natal)

Study Design: B (Cross-section with control). Pre-post household surveys, mortality surveillance and autopsies. No control group.

Study Population: Women, pregnant women, and children under 5 years.

Primary Care Measures: Maternal and infant mortality, use of contraceptives, assisted deliveries, breastfeeding, and immunization coverage.

Primary Health Care Definition: The article refers to implementation of an "integrated structure of community health care" and lists a number of interventions under the broad term "primary health care services" (102).

Impact/Result: After 30 months, community surveys reported a significant reduction of infant mortality rate from 60/1,000 to 37/1,000; decreased maternal mortality; improved infant feeding and caretaking practices; improved immunization rates; and increased rates of consultation with physicians; and a greater percentage of births taking place in community clinics rather than hospitals.

McGuire, J. (2002). *Social Provisioning, Socioeconomic Context, and Child Mortality: A Cross-National Analysis*. Unpublished manuscript.

Country/Region: 92 countries

Study Design: A (Experiment, quasi experiment, or time series analysis). Cross-sectional study of national-level secondary data.

Study Population: Under-5 mortality.

Primary Care Measures: Public health spending, total health spending, physicians per 10,000, hospital beds per 10,000, access to prenatal care, attended deliveries, immunization coverage, access to water and sanitation services.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: In multiple regressions using data from 92 developing countries from 1990 and controlling for a variety of health determinants, female schooling, percentage of deliveries attended by a trained professional, immunization coverage, and access to water and sanitation services were strongly associated with under-5 mortality.

Assunção, M. C., Santos, I., & Gigante, D. P. (2001). [Diabetes mellitus at the primary health care level in Southern Brazil: structure, course of action and outcome]. *Rev Saude Publica*, 35(1), 88-95.

Country/Region: Brazil

Study Design: D (Cross-section without control). Cross-sectional study.

Study Population: 32 Clinics, 61 providers, and 378 diabetic patients .

Primary Care Measures: Clinics: basic supplies. Provider: training, test knowledge of treatment of diabetes. Patient: questionnaire & physical exams (glucose screening).

Primary Health Care Definition: A primary health care system is defined as including “assessment of local needs and resources; consensus over norms of care; mechanisms to use latest research findings; training and use of all health professionals; continuous evaluation of the effectiveness and quality of treatment of patients” (89)

Impact/Result: Nearly all primary care clinics were deficient in: structure – inadequate resources; processes – between 10 and 15 % of physicians did not mention key interventions such as diet as important; and outcomes – approximately 50 % of patients had elevated blood sugar. Disease control was only 6 to 11%.

Baer, W., Campino, A., & Cavalcanti, T. (2001). Health in the development process: The case of Brazil. *The Quarterly Review of Economics and Finance*, 41, 405-425.

Country/Region: Brazil, and cross-country comparative analysis

Study Design: B (Cross-section with control). Econometric analysis; cross-sectional regressions.

Study Population: National health systems.

Primary Care Measures: Life expectancy at birth; human development index (HDI); infant mortality rates; doctors per 100,000; nurses per 100,000; infants with low birth weight; access to safe water; access to sanitation; public expenditures on health as a % of GDP; distribution of public and private facilities; percentage of population with private insurance.

Primary Health Care Definition: The article discusses the priority given by the Brazilian government to “preventive services designed to keep people from falling ill in the first place.” (411)

Impact/Result: The main impacts discussed in the article are the effect of national income per capita and inequality on life expectancy. The authors conclude that while life expectancy in Brazil is lower and infant mortality rate is higher than what is expected given the country’s per capita income, this effect is due to the high level of inequality that exists in Brazil.

Gagliardino, J. J., de la Hera, M., & Siri, F. (2001). [Evaluation of the quality of care for diabetic patients in Latin America]. *Rev Panam Salud Publica*, 10(5), 309-317.

Country/Region: Latin America (Argentina, Brasil, Chile, Colombia, Paraguay and Uruguay).

Study Design: D (Cross-section without control). Cross-sectional study; descriptive.

Study Population: Individuals with diabetes mellitus in Latin America.

Primary Care Measures: Glucose levels for patients with diabetes mellitus type 1 (DM1) and diabetes mellitus type 2 (DM2); frequencies of association of diabetes mellitus with other cardiovascular risk factors; frequency of adequate systematic checking of metabolic control and risk factors; proportion of patients who can “play an active, effective role in [diabetes mellitus- control and treatment” (317); cross-frequencies and percentages of diabetes mellitus patients who treated with insulin injections, diet, and oral hypoglycemics; frequency of patients’ macroangiopathics and microangiopathics complications.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: 24% of the persons with DM1 and 15% of the persons with DM2 had a blood glucose level of < 4.4 mmol/L; while 41% of the persons with DM1 and 57% of the persons with DM2 had a blood glucose level of < 7.7 mmol/L. “The frequencies of association between DM2 and other cardiovascular risk factors were: overweight/obesity, 59%; hypertension, 60%; total cholesterol > 5.5 mmol/L, 53%; high-density lipoprotein cholesterol < 1 mmol/L, 32%; triglycerides > 1.7 mmol/L, 45%; and smoking, 13%. Of the people with DM1, 20% of them had a body mass index < 19 kg/m², probably reflecting deficient metabolic control and inadequate insulin intake.” (317). Checking of metabolic control, cardiovascular risk factors, and chronic DM complications was inadequate in 3% to 75% of the cases. Between 25% and 50% of the patients could play an active, effective role in DM control and treatment.

“Of the persons with DM1, 50% of them were treated with a mixed dose of insulin (NPH + regular insulin), administered in two daily injections in 43% of the cases. Among the patients, 5% of them received one daily insulin injection, and 9% of them received three daily insulin injections. Of the people with DM2, 13% of them treated it only with diet and 14% just with insulin. Among the patients receiving drug treatment, the oral hypoglycemics most used in monotherapy were sulfonylureas (33%), biguanides (9%), and a combination of these two (14%). Fewer than half of the people with diabetes received drug therapy for the associated cardiovascular risk factors. The frequency of patients’ macroangiopathic and microangiopathic complications increased with the duration of their disease” (317).

Gomez-Dantes, O., Garrido-Latorre, F., Tirado-Gomez, L., Ramirez, D., & Macias, C. (2001). Abastecimiento de medicamentos en unidades de primer nivel de atención de la Secretaría de Salud de México. *Salud Pública de México*, 43(3), 224-232.

Country/Region: Mexico

Study Design: D (Cross-section without control). Cross-sectional sample survey (facility assessment).

Study Population: Primary care clinics.

Primary Care Measures: Presence of 36 essential drugs.

Primary Health Care Definition: The article focuses on a Mexican program provided at the “primary level of care”, and that includes sanitation, family planning, child and maternal care, child nutrition, immunizations, control of diarrhea, deworming, control of tuberculosis, control of diabetes, accident prevention, and capacity building for health self-reliance at the community level.

Impact/Result: On average 18 of 36 drugs were available in clinics. Antibiotics, antituberculosis, and antimalarials were generally absent, while ORS, family planning methods, and vaccines were generally present.

Gulliford, M. C., & Mahabir, D. (2001). Utilisation of private care by public primary care clinic attenders with diabetes: relationship to health status and social factors. *Soc Sci Med*, 53(8), 1045-1056.

Country/Region: Trinidad & Tobago

Study Design: B (Cross-section with control). Cross-sectional (stratified by clinic) randomly selected 35 clinics, then recruit diabetics.

Study Population: Adult diabetics (2,117 total).

Primary Care Measures: Attendance of a private provider.

Primary Health Care Definition: The article focuses on a system of government “primary care health centres” or clinics.

Impact/Result: Those with worse health status (measured using SF-36) were more likely to attend a private doctor, but poorer individuals were less likely to attend than were richer individuals, regardless of health status.

Cufino Svitone, E., Garfield, R., Vasconcelos, M. I., & Araujo Craveiro, V. (2000). Primary health care lessons from the northeast of Brazil: the Agentes de Saude Program. *Rev Panam Salud Publica*, 7(5), 293-302.

Country/Region: Brazil

Study Design: B (Cross-section with control). Analysis of survey and vital statistics data and trends.

Study Population: Mothers and children in Ceará state.

Primary Care Measures: Health behaviors (breastfeeding, use of ORT). Vaccination coverage, weight monitoring. The outcome is infant mortality rate (by cause).

Primary Health Care Definition: The article focuses on the Health Agents program of Ceará, which has the following characteristics: (1) the program relies on nurses rather than physicians; (2) health agents work in a defined area, and they have to live in the area where they worked; (3) the focus of the program is health promotion and education, while referrals are used for curative care; (4) funding for the program are shared among state and local governments; and (5) low cost, since it does not provide medicines and uses no physicians.

Impact/Result: Percentage of intermediate effects (breastfeeding, giving ORT, receiving prenatal care, vaccination coverage, institutional deliveries) and outcomes (IMR by cause) improved. Program success includes: longitudinality; family and community orientation, first contact, intersectorial collaboration. Weaknesses include referral mechanisms, access barriers, environmental and SES conditions.

Lopez Stewart, C., Lara, M. G., Amighetti, L. D., Wissow, L. S., Gutierrez, M. I., Levav, I., et al. (2000). Parenting and physical punishment: primary care interventions in Latin America. *Rev Panam Salud Publica*, 8(4), 257-267.

Country/Region: Costa Rica and Chile

Study Design: E (Observation). Qualitative cross-sectional design using focus groups and surveys.

Study Population: Parents and primary care providers from 6 primary care clinics.

Primary Care Measures: Acceptability and feasibility of child discipline education in primary care.

Primary Health Care Definition: The article discusses the effect of primary care interventions on parental physical punishment because “primary care providers interact with families from the child’s first days of life and thus may be in a position to influence parents’ practices.” (258)

Impact/Result: Parents and providers were amenable to development of a primary-care-based program on child physical punishment. Study suggests health care professionals need training in child discipline and in communication with parents.

Perry, B., & Gesler, W. (2000). Physical access to primary health care in Andean Bolivia. *Soc Sci Med*, 50(9), 1177-1188.

Country/Region: Bolivia (rural)

Study Design: D (Cross-section without control). GIS analysis of PHC facilities and populations’ spatial orientation.

Study Population: Health facilities and habitations.

Primary Care Measures: Population per primary care nurse. Population within one-hour walk of primary care facility

Primary Health Care Definition: The article uses the definition of primary health care established at the Alma Ata Conference in 1978.

Impact/Result: Up to 21% of the population is more than 1 day’s walk away from a health facility in this region. Even then, the provider to population ratio is approximately 1:5,429.

Riverón Corteguera, R. (2000). Estrategias para reducir la mortalidad infantil, Cuba 1959-1999. *Revista Cubana de Pediatría*, 72(3), 147-164.

Country/Region: Cuba

Study Design: D (Cross-section without control). Analysis of routine data and special surveys.

Study Population: Infants.

Primary Care Measures: Detailed description of aspects of primary health care system.

Primary Health Care Definition: The approach of primary health care is centered on the use of family health physicians and nurses, which provide comprehensive care to families. Other levels of the health system are integrated to primary care.

Impact/Result: The author concludes that changes in access, organization, and delivery of PHC in Cuba over a 40 years period led to 40% declines in IMR in the 70's, 80's and 90's. No multivariate statistics presented.

Santos, I. S., Baroni, R. C., Minotto, I., & Klumb, A. G. (2000). [Criteria for choosing health care facilities for prenatal care in Pelotas, RS, Brazil]. *Rev Saude Publica*, 34(6), 603-609.

Country/Region: Brazil

Study Design: B (Cross-section with control). Cross-sectional study (401 mothers from four maternity hospitals).

Study Population: Mothers who recently gave birth.

Primary Care Measures: Questions administered to recent mothers regarding their last pregnancy. Including socio-demographic information, reasons for choosing clinic, and types of tests and procedures performed.

Primary Health Care Definition: No explicit definition of primary health care is given.

Impact/Result: 51 % of mothers had prenatal care at a public primary health care facility (PHCF). Lower SES women were more likely to choose PHCF. Main reason for choosing the PHCF was proximity, the main reason for not choosing PCHF was low quality of care. PHCF provide worse quality care (less iron supplementation, exams, ultrasound) but were more likely to give tetanus vaccinations. Assessment is likely to be biased due to patient self-reporting and lack of knowledge of prenatal care.

Victora, C. G., Barros, F., & Vaughan, J. P. (2000). The impact of health interventions on inequalities: infant and child health in Brazil. In D. Leon & G. Walt (Eds.), *Poverty, Inequality and Health - An International Perspective*. Oxford: Oxford University Press.

Country/Region: Brazil

Study Design: B (Cross-section with control). Pre-post survey (11 years) with no control.

Study Population: Families in a city of Rio Grande do Sul state that had newborns in 1982 or in 1993

Primary Care Measures: Antenatal care attendance; vaccine coverage.

Primary Health Care Definition: The article focuses on provision of “first-level governmental health facilities (...) providing free primary health care” (129).

Impact/Result: Higher availability, among the poorest, of antenatal care beginning at less than 5 months and child immunization resulted in: lower prevalence of low weight-for-age at 12 months for the poorest, closing the income gap; but the higher mortality rate for the poorest persisted when compared to the rest of the population.

Roetzheim, R. G., Pal, N., Gonzalez, E. C., Ferrante, J. M., Van Durme, D. J., Ayanian, J. Z., et al. (1999). The effects of physician supply on the early detection of colorectal cancer. *J Fam Pract*, 48(11), 850-858.

Country/Region: United States (state of Florida)

Study Design: B (Cross-section with control). Multivariate controls were used to compare areas with different levels of primary and specialist physician supply.

Study Population: Incident cases of colorectal cancer in Florida.

Primary Care Measures: At the regional level (within counties), the study investigated the impacts of the supply of primary care physicians when compared to the impact of specialty care physicians. At the local level (within ZIP codes), the study investigated the impacts of the supply of general internal medicine physicians, compared to physicians in obstetrics/gynecology and physicians in family/internal medicine.

Primary Health Care Definition: Within this study, “physicians were classified as primary care if their primary specialty was either family/general practice, obstetrics/gynecology, or general internal medicine, regardless of their secondary specialty designation”.

Impact/Result: The based on multivariate logistics regressions, the study found evidence that “for each 10-percentile increase in primary care physician supply at the county level, the odds of late-stage diagnosis decreased by 5% (adjusted odds ratio [OR] = 0.95; 95% confidence interval [CI], 0.92 - 0.99; P = .007). For each 10-percentile increase in specialty physician supply, the odds of late-stage diagnosis increased by 5% (adjusted OR = 1.05; 95% CI, 1.02-1.09; P = .006). Within ZIP code clusters, each 10-percentile increase in the supply of general internists was associated with a 3% decrease in the odds of late-stage diagnosis (OR = 0.97; 95% CI, 0.95 - 0.99; P = .006), and among women, each 10-percentile increase in the supply of obstetrician/gynecologists was associated with a 5% increase in the odds of late-stage diagnosis (OR = 1.05; 95% CI, 1.01 - 1.08; P = .005).” If causality can be inferred from this results, then 16% of the diagnoses of late-stage colon cancer in Florida can be attributed to the physician specialty supply in the state.

Terra de Souza, A. C., Cufino, E., Peterson, K. E., Gardner, J., Vasconcelos do Amaral, M. I., & Ascherio, A. (1999). Variations in infant mortality rates among municipalities in the state of Ceara, Northeast Brazil: an ecological analysis. *Int J Epidemiol*, 28(2), 267-275.

Country/Region: Brazil

Study Design: B (Cross-section with control). Ecological cross-sectional study (140 municipalities).

Study Population: Infants.

Primary Care Measures: Health services (coverage of prenatal care, immunizations, growth monitoring, and decentralization). The outcome is infant mortality rates.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: In multivariate models, most powerful predictors of infant mortality rates were exclusive breastfeeding, prenatal care up to date, female literacy, and percentage of households with low income. Model selection processes not well documented so other covariates could also have influenced outcomes.

Villalbi, J. R., Guarga, A., Pasarin, M., Gil, M., Borrell, C., Ferran, M., et al. (1999). Evaluacion del impacto de la reforma de la atención primaria sobre la salud. *Atención primaria*, 24, 468-474.

Country/Region: Spain (city of Barcelona)

Study Design: A (Experiment, quasi experiment, or time series analysis). Mortality rates in the city of Barcelona are observed for the period of 1984 to 1996, with controls by stage of implementation of health reform.

Study Population: Population of Barcelona.

Primary Care Measures: The study divided the city of Barcelona in three main groups: the areas where health reform was implemented between 1984 and 1989 was group RAP1; the areas where health reform was implemented between 1990 and 1991 was group RAP2; and the areas that remained within the previous health system in 1992 was called NORAP. The main outcome measures in the study are general mortality rates and mortality rates by avoidable causes.

Primary Health Care Definition: The study aims to evaluate the impact of primary health care reform on health outcomes in the city of Barcelona. No specific definition of primary health care is offered in the article.

Impact/Result: The study found evidence that "significant differences among the three zones are initially visible. The mortality decline is 13.6% in the RAP1 zone and 10.3% in the NORAP zone, so that the decline in the RAP1 zone is 32% greater than in the NORAP zone. At the end of the study, mortality due to stroke and hypertension is lower in the RAP zones than in the NORAP zone. Perinatal mortality shows a clear decline in the three zones. No relevant changes are seen for tuberculosis or cervical cancer. Lung cancer mortality increases except in RAP1 zone where it declines, to the point that the excess mortality from that cause estimated by comparison with the NORAP zone in the initial phase of the study vanishes. Death rates from cirrhosis and motor vehicle accident decline in all zones."

Bojalil, R., Guiscafre, H., Espinosa, P., Martinez, H., Palafox, M., Romero, G., et al. (1998). The quality of private and public primary health care management of children with diarrhoea and acute respiratory infections in Tlaxcala, Mexico. *Health Policy Plan*, 13(3), 323-331.

Country/Region: Mexico

Study Design: B (Cross-section with control). Case-control (observation of public vs. private providers).

Study Population: Children under 5 with acute diarrheal disease and/or acute respiratory infection.

Primary Care Measures: Quality of primary care physician diagnosis and counseling based on WHO guidelines as assessed by trained nurse/ interviewers.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: Public providers gave better quality care. 15% private vs. 63% gave quality care for ADD ($p<0.001$); 29% private vs. 73% public for ARI ($p<0.001$).

Franks, P., & Fiscella, K. (1998). Primary care physicians and specialists as personal physicians. Health care expenditures and mortality experience. *J Fam Pract*, 47, 105-109.

Country/Region: United States

Study Design: B (Cross-section with control). Cross-sectional design; a group of adults who had a primary care physician as a personal doctor was compared to a group who had a specialist physician as a personal doctor.

Study Population: US adult population, with data extracted from the 13,270 adult respondents in the 1987 National Medical Expenditure Survey.

Primary Care Measures: Primary care measure in the study was having a primary care physician, rather than a specialist, as a personal physician. Health perception and annual healthcare expenditures were used as outcome variables in the first analysis. In the second analysis, the outcome variable was adjusted health care expenditures while control variables were demographics, health insurance status, self-reported diagnoses, health perception, and smoking status.

Primary Health Care Definition: The article investigates the person-focus aspect of primary health care, rather than a disease focus, by examining the impact of having a primary care physician, rather than a specialist physician, as a personal doctor.

Impact/Result: The article found that “respondents with a primary care physician, rather than a specialist, as a personal physician were more likely to be women, white, live in rural areas, report fewer medical diagnoses and higher health perceptions and have lower annual healthcare expenditures (mean: \$2029 vs \$3100) and lower mortality (hazard ratio = 0.76, 95% confidence interval [CI], 0.64-0.90). After adjustment for demographics, health insurance status, reported diagnoses, health perceptions, and smoking status, respondents reporting using a primary care physician compared with those using a specialist had 33% lower annual adjusted health care expenditures and lower adjusted mortality (hazard ratio = 0.81; 95% CI, 0.66-0.98)”. The authors interpret the findings as evidence that having a primary care physician as a personal doctor is more cost-effective than having a specialist physician in this role.

Perry, H., Robison, N., Chavez, D., Taja, O., Hilari, C., Shanklin, D., et al. (1998). The census-based, impact-oriented approach: its effectiveness in promoting child health in Bolivia. *Health Policy Plan*, 13(2), 140-151.

Country/Region: Bolivia

Study Design: B (Cross-section with control). Pre-post survey with control communities.

Study Population: Children under 5.

Primary Care Measures: Mortality, immunization coverage, nutrition monitoring, health services coverage, average cost of services/program.

Primary Health Care Definition: The article focuses on an approach to health improvement that “focuses programme activities on the most frequent and serious preventable or treatable causes of ill health and also on the most pressing health problems identified by the local communities themselves” (140). Within the census-based, impact-oriented approach, the program population receives a package of primary health care and child survival services, including “semi-annual visits to all homes with children under two years of age for childhood immunization, growth monitoring and health education; additional home visits when acute medical problems arise; treatment of acute illness at readily accessible health posts or health centres; and referral (including transport when possible) of patients in need of hospitalization” (142).

Impact/Result: Under 5 mortality in program areas was one-third to one-half lower than in control communities. Immunizations and nutrition monitoring reached nearly 80% (as opposed to 20 % in control areas). The program costs are estimated at about \$8.50 per person.

Pena-Valdovinos, A., Jimenez-Cruz, A., Leyva-Pacheco, R., & Bacardi-Gascon, M. (1997). Metabolic control in diabetic patients at the primary care level in Mexico. *Diabetes Res Clin Pract*, 37(3), 179-184.

Country/Region: Mexico

Study Design: D (Cross-section without control). Cross-sectional analysis of outpatient files.

Study Population: Adult diabetics.

Primary Care Measures: Patient variables including detect fasting blood glucose, total cholesterol, and glycosylated hemoglobin.

Primary Health Care Definition: The article focuses on the care given at the diabetes control given at the “primary care level” in Mexico, but no explicit definition is given.

Impact/Result: Results suggested a) poor provider monitoring of patient indicators; b) lack of adequate life style counseling; and c) poor rates of control of metabolic conditions known to exacerbate diabetes. Author suggests guidelines should be designed at the local level, together with nutritional counseling and exercise programs for individuals and groups.

Reyes, H., Perez-Cuevas, R., Salmeron, J., Tome, P., Guiscafre, H., & Gutierrez, G. (1997). Infant mortality due to acute respiratory infections: the influence of primary care processes. *Health Policy Plan*, 12(3), 214-223.

Country/Region: Mexico

Study Design: B (Cross-section with control). Case control. The cases are children that died from ARI matched with controls who lived.

Study Population: Infants

Primary Care Measures: The study constructed indexes related to primary health care. Process of care index was constructed from “inadequate referral, attention provided by more than one physician and being attended by a private physician”. Children's characteristics index was constructed from “perinatal history, lack of breast-feeding and incomplete immunization scheme”. Access to medical services index was constructed from “geographic and economic barriers, lack of confidence in public health services”. Mothers' characteristics index was measured by untimely care seeking, years of education, employment status, and knowledge about pneumonia.

Primary Health Care Definition: No conceptual definition of primary health care is given. Primary care is operationalized as a set of measures that assess the process of care.

Impact/Result: The study found evidence that primary care processes had an impact on infant mortality due to acute respiratory infections. The following indexes of primary care showed independent effects: Process of care (OR 9.68, CI 95% 3.59-26.1); children's characteristics (OR 7.22, CI 95% 2.35-22.2); access to medical services (OR 5.27, CI 95% 2.02-13.7); and mothers' characteristics (OR 4.03, CI 95% 1.18-13.8). The authors concluded that “the management of the disease is a key determinant in which factors relating to the mother and the health services are strongly related. Our study reveals untimely care seeking, difficult access and inadequate disease treatment as important factors which deserve careful attention in the future. We also confirm the importance of biological determinants previously described. A main strategy to reduce infant mortality due to ARI should be to encourage training of primary care physicians, including private practitioners, focused on providing effective case management and emphasizing the education to mothers” (214).

Saraceno, B., Terzian, E., Barquero, F. M., & Tognoni, G. (1995). Mental health care in the primary health care setting: a collaborative study in six countries of Central America. *Health Policy Plan, 10*(2), 133-143.

Country/Region: Central America

Study Design: D (Cross-section without control). Cross-sectional study.

Study Population: Adults (812) attending 11 primary care centers in 6 countries.

Primary Care Measures: Type of mental health care provided, patient characteristics.

Primary Health Care Definition: The article focus on care provide at “primary health care centres.”

Impact/Result: Widely different types of services were provided to the patients in different health centers. These differences are partly the result of differences in PHC systems, and partly due to differences in the needs of patients.

Gonzalo Gutiérrez, M. C., Guiscafré, H., Reyes, H., Pérez, R., Vega, R., & Tomé, P. (1994). Reducción de la mortalidad por enfermedades diarreicas agudas. Experiencias de un programa de investigación-acción. *Salud Pública de México, 36*(2), 168-189.

Country/Region: México (Tlaxcala state)

Study Design: B (Cross-section with control). Pre-post intervention survey (Sep-Dec 1990, April-June 1991) with no control.

Study Population: Mothers and primary care physicians.

Primary Care Measures: Maternal knowledge of diarrhea and dehydration control, type of treatment for diarrhea prescribed by physicians.

Primary Health Care Definition: The article focuses on capacity-building and education programs on diarrhea control for physicians and mothers.

Impact/Result: After an education program for mother on diarrhea control, increases were observed in the use of oral rehydration salts, oral rehydration therapy, and timely and appropriate demand for medical help. After a training program for physicians on diarrhea control, decreases were observed on the use of antibiotics and prescription of restrictive diets, while an increase in the use of oral rehydration therapy was observed.

Bahr, J., & Wehrhahn, R. (1993). Life expectancy and infant mortality in Latin America. *Soc Sci Med*, 36(10), 1373-1382.

Country/Region: Latin America (Costa Rica, Chile, Brazil)

Study Design: C (Systematic literature review). Literature review.

Study Population: Life expectancy and infant mortality.

Primary Care Measures: Presence of public health, primary care, and public hygiene programs and policies.

Primary Health Care Definition: The article uses the case of Costa Rica as an example of primary health care, described as being a system of health centers with the responsibility of treatment in case of illness, but also of making regular home visits for counseling and education.

Impact/Result: The authors' review of the available evidence suggests that in Costa Rica and Chile, improvements in public health and hygiene led to sustained decreases in infant mortality, while in Brazil, this was not the case. The authors did not empirically test these hypotheses.

Rosero-Bixby, L. (1991). Socioeconomic development, health interventions and mortality decline in Costa Rica. *Scand J Soc Med Suppl*, 46, 33-42.

Country/Region: Costa Rica

Study Design: A (Experiment, quasi experiment, or time series analysis). Time-series analysis of national-level data.

Study Population: Infant mortality rates and fertility.

Primary Care Measures: % of population covered by primary health care programs, immunization rates, sanitation, control of infectious diseases.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: From 1970 to the 1980's, fertility fell by half. In terms of the reduction in IMR from about 60 to 19/1,000, "regression analysis show that primary health care accounted for 41%, secondary medical care for 32%, socioeconomic progress for 22%, and decline in fertility for 5%..."

Andes, N. (1989). Socioeconomic, medical care, and public health contexts affecting infant mortality: a study of community-level differentials in Peru. *J Health Soc Behav*, 30(4), 386-397.

Country/Region: Peru

Study Design: B (Cross-section with control). Cross-sectional (and qualitative techniques).

Study Population: Compared infant mortality in two otherwise similar villages.

Primary Care Measures: Availability of drugs and equipment, personnel, hours open, utilization by social class, referrals.

Primary Health Care Definition: No explicit definition of primary health care.

Impact/Result: Social and economic factors (economic diversity, income inequality, women's employment) were instrumental in determining differences in infant mortality between 2 villages, in spite of similar health infrastructure. The article suggests that effectiveness of primary health care is influenced by the larger socioeconomic context of the community.

Scarpaci, J. L. (1988). Help-seeking behavior, use, and satisfaction among frequent primary care users in Santiago de Chile. *J Health Soc Behav*, 29(3), 199-213.

Country/Region: Chile

Study Design: E (Observation). Cross-sectional (non-random).

Study Population: Primary health care clinic users (adults).

Primary Care Measures: Distance to clinic, waiting time, choice of physician, prescriptions. The main outcome is the quality of care received.

Primary Health Care Definition: No explicit definition of primary health care is given.

Impact/Result: Factors associated with patient satisfaction included: public provider, lack of co-pay, probability of receiving a prescription, and good interpersonal relations.

B. PRIMARY HEALTH CARE PRINCIPLES IN ACTION

1. Community orientation

Daniulaityte, R. (2004). Making sense of diabetes: cultural models, gender and individual adjustment to Type 2 diabetes in a Mexican community. *Social Science & Medicine*, 59, 1899-1912.

Country/Region: Mexico (Guadalajara)

Study Design: E (Observation). Qualitative (in-depth interviews) and quantitative (consensus analysis with a non-probabilistic sample survey).

Study Population: Type 2 diabetes patients in Guadalajara.

Measures:

“Cultural model of diabetes causation, (...) gender-related differences, and (...) the relationship between cultural knowledge and the status of diabetes control” (1899).

Definition/Function:

While no definition of community participation is offered, the author argues that the diabetes control is related to local beliefs, practices and norms. Therefore, the results of the study could be evidence that community participation has an important role in diabetes prevention.

Impact/Result:

“The results demonstrated that participants shared a single cultural model of diabetes causality that emphasized emotional and environmental explanations of diabetes. (...) The results suggest that better diabetes control was related to a higher level of cultural knowledge.” (1899)

Mansuri, G., & Rao, V. (2004). Community-Based and -Driven Development: A Critical Review. *World Bank Policy Research Working Paper 3209*.

Country/Region: Developing countries (Latin America, Africa and Asia)

Study Design: C (Systematic literature review). Literature review.

Study Population: Community-based and community-driven development initiatives.

Measures: Allocation of project funds to communities and households within communities, level of participation, levels of heterogeneity and inequality. Especially in qualitative studies: capture by local elites, role of external agents and the state.

Definition/Function:

Participation – “Participation is expected to lead to better designed projects, better targeted benefits, more cost-effective and timely delivery of inputs, and more equitably distributed project benefits with less corruption and other rent-seeking activity.” (11)

Community – “Most of the literature on development policy uses the term community without much qualification to denote a culturally and politically homogeneous social system or one that, at least implicitly, is internally cohesive and more or less harmonious, such as an administratively defined locale (tribal area or neighborhood) or a common interest group.” (13) “What is labeled a community is often an endogenous construct defined by parameters of a project.” (13)

Impact/Result:

While many projects that use participatory approaches to development show positive outcomes, there is little evidence that the participatory element was the main driver of the results. Empirical evidence suggests that community-based and community-driven development initiatives have been more successful with targeting poor communities than targeting poor households within communities, and this is particularly true for more unequal communities. Many studies have found “a U-shaped relationship between inequality and project outcomes” (55). There is evidence that community ownership has a positive effect on project outcomes: “community members were more willing to pay for investment costs when they had control over the funds. When government staff or contractors controlled the funds, communities viewed their contribution as a tax rather than a fee for service.” (30)

Capture by local elites has been common in participatory initiatives, but while this could have a negative impact on outcomes through corruption and rent-seeking, some cases of “benevolent capture” have been observed with positive results.

Qualitative studies suggest that an appropriate enabling environment, presence of external project facilitators, and adaptation of projects to local contexts are important requirements for the sustainability of community-based initiatives.

Shin, S., Furin, J., Bayona, J., Mate, K., Kim, J. Y., & Farmer, P. (2004). Community-based treatment of multidrug-resistant tuberculosis in Lima, Peru: 7 years of experience. *Soc Sci Med*, 59(7), 1529-1539.

Country/Region: Peru (Lima)

Study Design: E (Observation). Qualitative, case study. Participant observation, interviews, and document analysis.

Study Population: Program to treat multidrug-resistant tuberculosis, implemented in partnership between Peruvian government, university-based institute and community-based NGO's.

Measures: The qualitative methodology was used to track and analyze the evolution of the program. The most important aspects to be assessed during the progress of the program included: "the formation of an integrated team, intensive training, emphasis on community-based ambulatory patient care and remediation of socioeconomic factors that contribute to adverse treatment of outcome." (1533) The evolution in the number of patients, health professionals, community and administrative workers is shown.

Definition/Function:

The community-based approach is centered on partnerships of the government with NGOs and the use of community-health workers that are "trained in community outreach and basic medical issues" (1533), as well as volunteers. The duties of the two groups include visits to patient homes and establishment of close connections with the patients and their families.

Impact/Result:

The study claims that the partnership with community-based NGOs and the use of community-health workers in addition to regular medical professionals provided a successful solution and the appropriate organizational components to the complex problem of managing the treatment of multidrug-resistant tuberculosis. No outcome data on tuberculosis is provided by the study. Instead, it focuses on growth and progress of the organizational structure associated with the program.

Torres Goitia, J. (2003, September 24th, 2003). *Atención Primaria de Salud y Participación Popular 1978-2003*. Paper presented at the Acto especial de homenaje a los 25 años de vigencia de la Atención Primaria de Salud, Washington.

Country/Region: Developing countries, particularly mentioning Bolivia.

Study Design: F (Policy paper or non-systematic review). Conference speech.

Study Population:
Participatory mechanisms of primary health care systems.

Measures:
No specific measures of community participation are given.

Definition/Function:
The speech criticizes the implementation of community participation in primary health care. The author argues that in most cases community participation has been transformed into a mechanism to reduce costs and increase health service coverage by requiring free collaboration from communities. The author further claims that the Bolivian experience is closer to the ideals of the Alma Ata conference, in which active community participation is a result of shared responsibilities, but the governments retains its obligation of providing health care so that health is part of social and economic development.

Impact/Result:
Detailed impacts of community participation are not offered, but the author associates participation with empowerment of communities.

Behague, D. P., Gonçalves, H., & Dias da Costa, J. (2002). Making medicine for the poor: primary health care interpretations in Pelotas, Brazil. *Health Policy Plan*, 17(2), 131-143.

Country/Region: Brazil

Study Design: E (Observation). Ethnography and analysis of routine and survey data.

Study Population: Women, healthcare providers.

Measures:
Perceptions of quality of care and utilization of ante-natal care services.

Definition/Function:
The article defines primary health care using the goals proposed at the Alma Ata conference. For the particular case under study, PHC includes "universal low-cost medical care, together with a greater focus on preventive care and community participation." (131)

Impact/Result: Users value private care more highly than public care--even though private care may be of lower technical quality. This view is also prevalent among healthcare providers. "For the poor... PHC...constitutes an insult in the face of clear inequalities in access to medical technology and good quality care."

Wayland, C., & Crowder, J. (2002). Disparate views of community in primary health care: understanding how perceptions influence success. *Med Anthropol Q*, 16(2), 230-247.

Country/Region: Brazil, Bolivia.

Study Design: E (Observation). Qualitative design.

Study Population: Community members (adults), providers, program managers.

Measures: Definition of community served.

Definition/Function:

The article focuses on the importance of community and participation in primary health care.

Impact/Result: Different conceptions of “community” between users and providers/program managers can lead to lower rates of utilization, acceptance, and participation.

Winch, P. J., Leban, K., Casazza, L., Walker, L., & Percy, K. (2002). An implementation framework for household and community integrated management of childhood illness. *Health Policy Plan*, 17(4), 345-353.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Conceptual / descriptive paper.

Study Population: Systems of household and community integrated management of childhood illness.

Measures: Presence of partnerships between communities and health facilities/services; level of utilization of health facilities/service; presence of mechanisms for community feedback; quality of care from community-based providers; engagement of communities in selection and promotion of good health practices.

Definition/Function:

The objective of the article is to describe and clarify doubts about the community component of systems of integrated management of childhood illness. The community integrated management of childhood illness approach, described by the article, contains three main programmatic elements. The first community-related programmatic element is “improving partnerships between health facilities (and services) and the communities they serve” (349). The main goals of this element are to establish partnerships, to increase utilization of health services, and to establish tools for community participation on the management of health facilities and services. The second community-related element is “increasing appropriate and accessible care and information from community-based providers” (349). The main goal of this element is to improve the quality of health care and promotion from community-based providers. The third community-related element is to “integrating promotion of key family practices critical for child health and nutrition”. The main goals of this element are to increase the use of good family practices for health and nutrition, and to involve communities in the definition of behaviors and actions to be encouraged.

Impact/Result:

The article does not mention specific health outcomes.

Homedes, N., & Ugalde, A. (2001). Improving the use of pharmaceuticals through patient and community level interventions. *Soc Sci Med*, 52(1), 99-134.

Country/Region: Developing countries.

Study Design: C (Systematic literature review). Literature review.

Study Population: Interventions that have as objective to improve “patients’ compliance with the advice of health professionals and/or to decrease the unnecessary use of drugs by the general health population.” (99)

Measures: Use of community health workers, use of screening stations based at the communities for screening hypertension.

Definition/Function:

The review is focused on interventions designed to increase patients’ compliance with professional health advice and to reduce unnecessary drug use. In particular, most of the authors reviewed argue that broader interventions including all actors in the medication cycle are more effective for achieving these compliance goals, including community-level approaches.

Impact/Result:

Positive effects of interventions using community-based approaches are identified in the literature for a number of diseases and conditions. Hypertension control programs that are community-based have shown effective results. For malaria, “targeting the health education message for community beliefs” (108) and “making pills accessible through CHW” have been effective. The use of community health workers has also been effective for the treatment and management of acute respiratory infection, and for the identification of epilepsy and subsequent follow-up of treatment. The review also identified studies that argued that “educating community health workers through simple mass media decreases the prevalence of self-medication and increases the use of non-pharmacological therapies.” (108)

Morgan, L. M. (2001). Community participation in health: perpetual allure, persistent challenge. *Health Policy Plan*, 16(3), 221-230.

Country/Region: Mostly developing countries (Latin America and Africa), but also mentions case studies from England.

Study Design: C (Systematic literature review). Literature review.

Study Population: Models / approaches to community participation.

Measures:

The article discusses the problems regarding the operationalization of community participation in health. The author relies on Oakley et al. (1999) to suggest that participation can be understood as a principle, rather than an input. According to this view, participation is an open 'process' without an endpoint, and therefore, difficult to measure. While no definitive measures of participation are offered by the article, the author mentions that the qualitative, participatory, and action research methodologies to study community participation have been more readily accepted by the development establishment.

Definition/Function:

The article offers two main approaches to defining for "community participation in health". According to the first definition, community participation is a "*utilitarian* effort on the part of the donors or government to use community resources (land, labor and money) to offset the costs of providing services" (221). In the second definition, community participation is "an *empowerment* tool through which local communities take responsibility for diagnosing and working to solve their own health and development problems." (221)

Impact/Result:

Detailed impacts of community participation are not reported in the article, but the author discusses the importance of the "significance of local and cultural variability in determining outcomes" of community participation in health..

Mosquera, M., Zapata, Y., Lee, K., Arango, C., & Varela, A. (2001). Strengthening user participation through health sector reform in Colombia: a study of institutional change and social representation. *Health Policy Plan, 16 Suppl 2*, 52-60.

Country/Region: Colombia (Cali)

Study Design: D (Cross-section without control). Case study, combining qualitative techniques (group interviews, semi-structured interviews) with quantitative pieces (probabilistic sample survey).

Study Population: Adult health care users in the city of Cali for discussion and survey; policymakers for semi-structured interviews.

Measures:

The study assessed several factors associated with the level of user participation in the health care system, including: "level of information about the new social security system, including the new participatory mechanisms; willingness to participate and perceived ability to affect health-care decision making; belief in the capacity to move from one provider to another; and a sense of ownership by the user of the new health system." (56)

Definition/Function:

The authors mention two main perspectives of participation in health described as: "participation as a means, and participation as an end in itself – also referred as the technological or target-oriented, and the critical or empowerment approaches." (52) The operationalization of community participation in the study, however, is focused on two mechanisms: customer service offices (complaint mechanism) and user associations (user representation mechanisms).

Impact/Result:

The article attempted to assess the mechanisms of user participation rather than the impact of participation on the outcomes of health system. The main conclusions of the study for the case of Cali, Colombia were: (1) not all institutional stakeholders support the use participatory mechanisms, or believe that they are beneficial to the health system; (2) although there is a legal mandate for participatory mechanisms in the public and private sectors alike, implementation has been uneven; (3) health user associations have not felt empowered; (4) people interviewed felt that they could participate in the health system, but they did not have enough knowledge about the health systems and mechanisms of participation; and (5) the knowledge of participation mechanisms concentrated on the use of customer service offices rather than other types of participation.

Nigenda, G., Mora-Flores, G., Aldama-Lopez, S., & Orozco-Nunez, E. (2001). [Practice of traditional medicine in Latin America and the Caribbean: the dilemma between regulation and tolerance]. *Salud Publica Mex*, 43(1), 41-51.

Country/Region: Nine countries in Latin America and the Caribbean (Bolivia, Chile, Ecuador, Guatemala, Mexico, Peru, Costa Rica, and Nicaragua).

Study Design: E (Observation). Qualitative (key informants, open-ended interviews, document analysis).

Study Population: Components and regulatory aspects of traditional medicine systems.

Measures:

The measures of the study are related to the degree of regulation of traditional medicine practices in each country. According to this definition, the countries are categorized into three groups: countries with developed legislation on traditional medicine; countries that are still developing such legislation; and countries with no legislation on this matter.

Definition/Function:

The article offers no definition of community participation. It focuses on traditional medicine, which is characterized in terms of cultural elements aimed at healing. One of its main dimensions is the mystical-religious aspect, as well as the use of herbal-based therapies.

Impact/Result:

The results of the study are presented in terms of the level of regulation of traditional medicine practices. Among the nine countries included in the study, Bolivia and Chile had a developed regulatory framework on traditional medicine; Ecuador, Guatemala, Mexico and Peru were discussing and drafting legislation on traditional medicine; while in Costa Rica, Nicaragua, and the Dominican Republic, the discussion on the regulation of traditional medicine was still incipient.

Barrett, B. (1996). Integrated local health systems in Central America. *Soc Sci Med*, 43(1), 71-82.

Country/Region: Central America

Study Design: F (Policy paper or non-systematic review). Case studies (descriptive).

Study Population: Primary health care system.

Measures:

Community participation and integration of care.

Definition/Function: The article summarizes “primary health care” (or alternative terms such as “community-based health care) as including “the simple notions that health will be best served if (1) people from a community--village, neighborhood, or cultural or socioeconomic grouping--take part in planning and implementing their own health care, and (2) health systems are oriented toward preventive and primary rather than curative and specialty health care.” (73)

Impact/Result: The author identifies conceptual, ideological and political constraints to effective community participation in primary health care. The study is useful only in its description of the various PHC systems in each country. The hypotheses are not tested.

Ugalde, A. (1985). Ideological dimensions of community participation in Latin American health programs. *Soc Sci Med*, 21(1), 41-53.

Country/Region: Latin America

Study Design: C (Systematic literature review). Conceptual paper / literature review.

Study Population: Health systems in Latin America

Measures:

No specific measures of community participation are offered, but the author argues that participation in the region was symbolic and the main role of the community was to select health workers and appoint volunteers.

Definition/Function:

The author argues that community participation in Latin America was structured around the erroneous ideas that local values were contradictory to health and development, and that the poor could not organize themselves. The author further argues that the form of community participation implemented by the international organizations in the region was essentially symbolic, and its actual purposes were to legitimize low-quality care “known as primary health” (41) and to generate support for national governments in the region.

Impact/Result:

The author does not offer empirical impacts of community participation on health system, but mentions some conclusions based on the premise that “the degree of success of any form of community participation is inversely correlated to the degree of social stratification of the society.” (49) The article argues that community participation is more desirable in less stratified societies, and is not a requirement for the effectiveness of primary health care services. At any rate, community participation may be a tool for decentralization and local oversight of public activities.

2. Comprehensiveness

Atun, R., Lennox-Chhugani, N., Drobniowski, F., Samyshkin, Y. A., & Coker, R. J. (2004). A framework and toolkit for capturing the communicable disease programmes within health systems. *European Journal of Public Health, 14*, 267-273.

Country/Region: No specific country or region.

Study Design: F (Policy paper or non-systematic review). Conceptual paper.

Study Population: Health systems and communicable disease programs.

Measures:

No explicit measures of comprehensiveness are given. The focuses on the integration of programs targeted at specific communicable diseases with the broader health system.

Definition/Function:

The article presents a set of tools to integrate vertical programs that typically are focused on a given disease, e.g. tuberculosis, with the horizontal dimension of national health systems. The article argues that the lack of integration between specific disease programs and the health system may decrease sustainability of such programs, since governments may choose to divert resources from the program areas and leave the task to international organizations or NGOs. A model of intervention aimed at the integration of vertical and horizontal dimensions are presented, and it includes information collection, search for gaps, monitoring, and synthesis of information.

Impact/Result:

The article mentions pilot experiences of implementation of the intervention in Russia, where attempts are being made to integrate local tuberculosis control programs into a national strategy.

Magnussen, L., Ehiri, J., & Jolly, P. (2004). Comprehensive versus selective primary health care: lessons for global health policy. *Health Aff (Millwood)*, 23(3), 167-176.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health systems in developing countries

Measures:

The paper does not discuss measures in details, but it uses some health indicators to illustrate arguments. Health indicators cited include life expectancy, infant mortality rates, number of children under five who died from vaccine preventable diseases.

Definition/Function:

The main argument of the paper is that “although short-term measures do not necessarily undermine the contributions of vertical therapeutic interventions to public health, it is apparent (...) that they are not sufficient to greatly alleviate the overall burden of disease in developing countries unless the socioeconomic, political, and health system factors that underpin health and disease in these countries are challenged” (175). Therefore, when contrasting comprehensive with selective primary health care, the authors suggest that although vertical programs are important because of their effectiveness for improving certain health indicators, their reach is limited and as such they are not substitutes for comprehensive primary health care.

The paper calls for a revitalization of the principles of Alma Ata, and lists a number of strategies that should be followed for the design and implementation of health policies: attention to concrete approaches that were proven to be effective elsewhere; integration with macroeconomic, labor and social policies; creation of intersectorial forums at every level; fostering community involvement in health; using trained health personnel; and keeping the long-term goals in sight.

Impact/Result:

The paper does not present specific measures of impact or results, but it presents successful cases of improvement in health indicators in developing countries as evidence that a comprehensive approach to primary health care is effective. The cases mentioned by the authors are “Sri Lanka, Costa Rica, Cuba, China, and Kerala state in India” (173).

Powell, C., Baker-Henningham, H., Walker, S., Gernay, J., & Grantham-McGregor, S. (2004). Feasibility of integrating early stimulation into primary care for undernourished Jamaican children: cluster randomised controlled trial. *BMJ*, 329(7457), 89.

Country/Region: Jamaica

Study Design: A (Experiment, quasi experiment, or time series analysis). Cluster randomized control trial.

Study Population: Undernourished children with ages between 9 and 30 months, and their mothers.

Measures:

"Weekly home visits by community health aides for one year in addition to usual duties." (89)

Definition/Function:

No explicit definition of comprehensiveness of care is offered in the article. The comprehensiveness aspect of the intervention analyzed in the article is defined by the integration of psychosocial stimulation into primary health care of undernourished children

Impact/Result:

Children that received weekly home visits by health aides showed significant improvements in development: "development quotient, 7.8 points (95% confidence interval 4.5 to 11); hearing and speech, 10.7 points (5.0 to 15.4); hand and eye coordination, 6.8 points (3.4 to 10.1); and performance subscale, 11.0 points (5.6 to 16.4)." (89)

Mahendradhata, Y., Lambert, M. L., Van Deun, A., Matthys, F., Boelaert, M., & van der Stuyft, P. (2003). Strong general health care systems: a prerequisite to reach global tuberculosis control targets. *Int J Health Plann Manage, Suppl 1*, S53-65.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health care systems in developing countries

Measures:

Loss of disability-adjusted life years (DALY) due to tuberculosis; proportion of tuberculosis in the global burden of diseases; tuberculosis mortality rates in person-years; estimated detection rate of total smear-positive cases; financial resources dedicated to tuberculosis control.

Definition/Function:

The main argument of the paper is that “tuberculosis control cannot reach its proposed global targets without investing in an adequate network of accessible, effective and comprehensive health services” (S54).

The authors argue that the central technical strategy for tuberculosis control remains as being good case management, including case-detection and treatment. Furthermore, they suggest that there is no compelling evidence to support the claim for active-case finding over passive case-finding. However, accessibility of services is a central element for successful tuberculosis control, since health services tend to be underutilized, and “poor adherence to lengthy tuberculosis treatment has always been a major issue in control of the disease” (S59). Therefore, strong and accessible health care system are necessary for effective tuberculosis control.

Impact/Result:

The paper does not offer detailed measures of impact. However, it argues for good case management by citing that “in Western Europe, 90% of the decline in tuberculosis incidence and mortality occurred before the availability of curative drugs” (S55). The authors also emphasize that DOT (Directly Observed Therapy) by itself is not a solution to tuberculosis control, but it may be an important part of good case management.

The main recommendations included in the paper are: paying special attention to early detection of cases, since it improves the prognosis considerably; taking into account that “the care needs of tuberculosis patients are not limited to treatment” (S60); given that in many circumstances 15% of identified cases are treated by private practitioners, the public health sector cannot achieve desirable cure rates by itself, and an integrated strategy must be pursued. The authors also stress the importance of increasing funds for tuberculosis control.

Langer, A., Nigenda, G., & Catino, J. (2000). Health sector reform and reproductive health in Latin America and the Caribbean: strengthening the links. *Bull World Health Organ*, 78(5), 667-676.

Country/Region: Latin America and the Caribbean

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health sector reforms in Latin America

Measures:

No measures of comprehensiveness of care are offered in the paper.

Definition/Function:

The focus of paper is on a comprehensive approach to reproductive health. The definition of health sector reform used in the article is a process of transformation that involves more than technocratic or managerial aspects, and may be a part of a democratization effort. The working definition of reproductive health in the article includes, in addition to the clinical aspect, an examination of women's status, causes of poverty and poor health. A comprehensive approach to reproductive health requires a "balance of national and local health priorities with available resources." (671)

Impact/Result:

The article does not offer evidence of impact of a comprehensive approach to reproductive health, but the main recommendations to improve reproductive health in a health reform environment are: use of participatory processes for monitoring progress; reliance on partnerships with NGOs; local capacity-building; and working with international aid organizations to ensure commitment.

Ehiri, J. E., & Prowse, J. M. (1999). Child health promotion in developing countries: the case for integration of environmental and social interventions? *Health Policy Plan*, 14(1), 1-10.

Country/Region: Developing countries

Study Design: C (Systematic literature review). Literature review.

Study Population: Child health promotion programs in developing countries.

Measures:

The article does not discuss measures in detail.

Definition/Function:

The authors argue that substantial reductions in mortality and improvements in the quality of life of children in developing countries cannot be achieved by selective primary care interventions alone. The article criticizes most child health promotion programs in developing countries for not paying sufficient attention to “environmental and social factors that underlie much of the childhood diseases in the developing world” (1).

The article uses the example of control of diarrhea to illustrate the importance of environmental and social factors. Based on secondary analyses, the authors mention that some of the factors that contribute to proliferation of diarrhea pathogens are: “improper disposal of excreta, unsafe water supplies, inadequate basic sanitation and hygiene, exposure of foods to flies and other vermin, undercooking, inadequate re-heating, inadequate storage of foods, cross-contamination, use of left-overs” (6).

Impact/Result:

Although direct evidence of impact is not presented in the article, the authors rely on the existing literature to suggest the adoption of a combination of approaches to inform the design of health promotion programs. The first approach suggested by the authors is a “triangulation of ethnographic, survey and observational methods that explore the viewpoints of mothers and care-givers” (7). The second approach mentioned in the paper is the hazard analysis critical control point (HAACP). As part of a strategy to reduce childhood diarrhea, the HAACP approach would be helpful for the “identification of hazards associated with any stage of food production, processing, packaging, preparation or service; the assessment of related risks and their severity; and the determination of steps where control can be applied for the achievement of safety” (7).

3. Equity

Gilson, L., & McIntyre, D. (2004). Removing user fees for primary care: Necessary, but not enough by itself. *Equinet Newsletter*, 42.

Country/Region: Africa

Study Design: F (Policy paper or non-systematic review). Policy paper (editorial piece).

Study Population: Primary health care systems in Africa.

Measures:

No explicit measures of equity are given.

Definition/Function:

The editorial piece argues that developing countries should not only remove fees for primary care services, but also increase the level of funding for public health and take additional measures to strengthen their health systems.

Impact/Result:

The author propose a package of policy actions for eliminating fees for primary care and strengthening health systems, including the following: (1) assigning the task of elimination of fees for primary care to a specific government unit; (2) implementing a public relations program to explain the policy change; (3) communicating the goals of the reform to health workers and managers; (4) planning carefully the availability of drugs and staff for the entire system; (5) creating new public funds to be managed autonomously at the local level; (6) expecting for unanticipated problems during the policy change.

Gwatkin, D. R., Bhuiya, A., & Victora, C. G. (2004). Making health systems more equitable. *Lancet*, 364(9441), 1273-1280.

Country/Region: 50 developing and transitional countries (not named in the paper).

Study Design: D (Cross-section without control). Cross-sectional without control.

Study Population:

Health systems in developing and transitional countries.

Measures:

Subsidies from government health services accruing to highest and lowest 20% of a country or region's population; coverage of public and private health services in lowest wealth quintile; ratio of coverage levels between highest and lowest wealth quintiles; use of health services by lowest and highest quintiles.

Definition/Function:

The authors do not offer an explicit definition of health equity, but the study primarily uses measures of coverage and access to health services, divided by income levels. Therefore, it can be inferred that the equitable health systems are the ones in which the distribution of health care is relatively uniform across different income levels.

The paper argues that equitable health systems can be achieved by three main strategies: "establishment of goals for improved coverage in the poor, rather than in entire populations, and use of those goals to direct planning toward the needs of the disadvantaged; use of one or more of the several techniques that seem to have been effective in at least some of the settings where they have been tried; and empowerment of poor clients to have a more central role in health system design and operation" (1273).

Impact/Result:

The authors argue that current health systems in developing countries are highly inequitable, and present different pieces of evidence to support their point of view. For a sample of 21 developing countries, 16% of total public subsidies for all health expenditures went to the bottom income quintile of the population, while 26.4% of the subsidies went to the top income quintile; 18.8% of total public subsidies for primary care expenditures went to the bottom income quintile of the population, while 19.7% of the subsidies went to the top income quintile.

Further results were obtained from a sample of 51-56 developing countries and considering the following services: antenatal care, full immunization, treatment of acute respiratory infection, attended deliveries, medical treatment of fever and diarrhea. The data shows that private facilities and providers treat considerably less patients from the bottom income quintile than public services do; while the distribution of people that use private providers is heavily skewed towards the higher income quintiles. Moreover, even the coverage for these basic health services, which are very important for needs of the poor, are disproportionately directed towards the highest income quintile.

Rawlings, L. (2004). *A New Approach to Social Assistance: Latin America's Experience with Conditional Cash Transfer Programs*. Washington, DC: World Bank Institute.

Country/Region: Latin America (Brazil, Colombia, Mexico and Nicaragua)

Study Design: C (Systematic literature review). Literature review

Study Population: Conditional cash transfer programs in Latin America

Measures:

Health and nutrition measures: frequency of growth monitoring visits and incidence of illness for infants under 3 yrs old; probability of stunting for children aged 12- 36 months old; incidence of acute diarrhea in children under 6; enrollment in nutrition monitoring for children less than 3 yrs old; timely immunization rates for children 12-23 yrs old; average consumption level of households; median food expenditures by households. The paper also mentions education measures: primary and secondary school enrollment rates; attendance rates; probability of working among aged 8 to 17.

Definition/Function:

The article reviews the main evidence for the effectiveness of conditional cash transfers (CCTs) in Latin America, which are defined as programs that “provide money to poor families contingent upon certain behavior, usually investments in human capital such as sending children to school or bringing them to health centers on a regular basis” (3). The author suggests that the CCTs are increasingly being used in Latin America and contain important innovations that address concerns with previous social assistance schemes. Furthermore, evidence from evaluation studies suggests that such programs have been successful in “increasing enrollment rates, improving preventive health care and raising household consumption” (3). The main innovations of conditional cash programs mentioned in the article are: 1) changing relationships of accountability, by establishing a direct relationship between national governments and program recipients and by-passing local government; 2) addressing current and future poverty by creating incentives for accumulation of human capital while providing short-term support; 3) targeting the poor, by establishing eligibility criteria; 4) providing cash, which addresses information asymmetries over the needs of the poor and reduces transaction costs; and 5) fostering synergies in human development, which recognizes the complementary relationships of health, nutrition and education for development. Despite the positive evidence on the impact of conditional cash transfer programs, the author also mentions negative points that need to be addressed. First, CCTs may be a detour around the necessary reforms of inefficient public services. Second, targeting mechanisms may have problems of lack of transparency to the families in need. Third, long-term sustainability of the programs and their impacts may be problematic.

Impact/Result:

In Mexico, PROGRESA has increased growth monitoring visits in infants between 30 to 60%, reduced incidence of illness in children, and lowered the probability of stunting. In Colombia, FA program has increased enrollment in growth monitoring by 37%, the incidence of acute diarrhea in children was reduced by 10% in urban areas and by 5% in rural areas. In Nicaragua, participation in nutrition monitoring in RPS program areas was 90%, compared to 67% in control areas, and timely immunization rates increased by 18%. The paper presents evidence of impacts of programs on education in Brazil, Mexico and Nicaragua, as well as measures of efficiency gains.

Rosero-Bixby, L. (2004). Spatial access to health care in Costa Rica and its equity: a GIS-based study. *Social Science & Medicine*, 58, 1271-1284.

Country/Region: Costa Rica

Study Design: B (Cross-section with control). Econometric analysis of census and geographic information systems data.

Study Population: Population of Costa Rica.

Measures:

The article discusses the use of measures of “access based on the distance to closest facility and proposes a more comprehensive index of accessibility that results from the aggregation of all facilities weighted by their size, proximity, and characteristics of both the population and the facility.” (1271)

Definition/Function:

The aspect of equity emphasized by the article is accessibility of health care, which by its turn contains two dimensions: social and geographical. The econometric analysis focuses on the geographical dimension of accessibility.

Impact/Result:

With regard to equity, the study estimates that 12 to 14% of population are underserved according to the following indicators: “having an outpatient outlet within 4 km, a hospital within 25 km, and less than 0.2 MD yearly hours per person” (1271) The author claims that between 1994 and 2000, substantial improvements took place, and this can be associated with the targeting strategy of the health reform that has been implemented since 1995: “the reform achieved this results by targeting the least privileged population first.” (1271)

Giraldo, J. F. O., Palacio, D. H., & García, L. E. F. (2003). [Resource distribution for the Basic Care Plan with equity approach, Bogotá 2002] in Spanish. *Rev Saude Publica*, 37(5), 643-640.

Country/Region: Colombia (Bogotá).

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Budget allocations for primary health care for the 20 areas of Bogotá.

Measures:

A global health index was constructed, including dimensions on demographics, quality of life and health conditions. Demographic conditions indicators: percentage of the population younger than 15; percentage of the population older than 65; percentage of the women in reproductive age. Quality of life indicators: percentage of the population in bottom two income n-tiles (specific percentiles not indicated); percentage of homes without access to water, sewage, and electricity; percentage of homes with 3 or more people living in a same room; unemployment rate; illiteracy rate; percentage of homes without garbage collection. Indicators of mortality and morbidity: mortality rate under 1 year old; mortality rate due to cardio and cerebrovascular diseases over 45 years old; mortality rates for homicide, suicide and accidents; incidence rate of diseases preventable by immunization; incidence rate of acute diarrheal disease among less than 5 year old.

Definition/Function:

The authors offer a formula of allocation of resources for primary health care that is based on the global health index, with the purpose of moving towards a more equitable distribution of health outcomes across areas of Bogotá. The 20 localities of Bogotá area categorized according to their health status into “poorer”, “intermediate” and “better” status.

The formula then uses the least squares method to minimize the difference between the observed values of the global health index for each area and the expected values for the global health index after resources were allocated. Therefore, the localities which are further from the expected values receive more weight in the allocation of resources, by a squared factor.

Impact/Result:

Although the allocation of the resources is done through an equity-based formula, disparities persist between the expected values of the global health index, after investments, between the areas in the “poorer” and the “better” health status groups. The authors interpret these findings as evidence that intersectorial action is required if equitable outcomes are to be achieved for global health status across areas.

Barraza-Llorens, M., Bertozzi, S., Gonzalez-Pier, E., & Gutierrez, J. P. (2002). Addressing inequity in health and health care in Mexico. *Health Aff (Millwood)*, 21(3), 47-56.

Country/Region: Mexico

Study Design: F (Policy paper or non-systematic review). Descriptive case study and policy paper.

Study Population: Population of Mexico.

Measures:

Dispersion of measures of health outcomes across regions were used in the paper, including: life expectancy; infant mortality rates; maternal mortality rates. Measures of user financing included proportion of out-of-pocket expenditures.

Definition/Function:

The authors argue that despite average increases in health outcomes in Mexico, major inequalities persist in access to health and health care. The multiple subsystems that exist in current health system in Mexico are unable to deliver universal health insurance. According to the paper, unless major reforms are carried out in the way the health system is financed, inequalities will persist.

The main subsystems of Mexico's health system are the social security, the Ministry of Health and the private sector. The social security sector typically covers the formally employed, but parallel institutions exist for certain group of workers in government of state companies. The Ministry of Health covers the population that does not qualify for either the social security or could not afford to purchase private care. The private sector typically covers the two ends of the income spectrum, including care in high quality institutions for the wealthier on one extreme, and care in unregulated and unsupervised private clinics for the ones who cannot afford health insurance on the other extreme.

Impact/Result:

No major of impact are presented in the paper, but several figures are presented to document the level of inequality. Infant mortality rates range from 9 deaths per 1,000 live births in the richest municipalities to 103 in the poorest. Out of pocket spending accounts for 52.9 percent of total health spending, and 2-3 million households (out of 23 million) spend more than a third of their income on health care. According to the 1998 National Household Income Expenditure Survey, "7 percent of families in the poorest decile incurred catastrophic expenditures in the previous three months, compared to only 3 percent of those in the highest income decile" (49).

Musgrove, P., Zeramdini, R., & Carrin, G. (2002). Basic patterns in national health expenditure. *Bull World Health Organ*, 80(2), 134-142.

Country/Region: WHO Member States.

Study Design: D (Cross-section without control). Descriptive analysis of WHO data.

Study Population: Health accounts of 191 WHO Member States.

Measures: Total health expenditures as a percentage of gross domestic product; out-of-pocket payments as a percentage of total health expenditures; public health expenditure as a percentage of total health expenditure; public health expenditure as a percentage of total public expenditure; out-of-pocket payments as a function of income per capita; total health expenditure per capita as a function of income per capita; total public expenditure per capita as a function of income per capita.

Definition/Function:

No explicit definition of equity is offered in the article.

Impact/Result:

The results show that total health spending varies from 2 to 3% of GDP in low income countries (less than US\$1000 per capita) to 8 to 9% in high income countries (more than US\$7000). In low-income countries, the proportion of out-of-pocket expenses are high on average and extremely variable, while in high-income countries both the average proportion and the variation are much smaller. Health expenditures as a share of total public expenditures increases as income rises, while total health needs as a proportion of need for public spending decreases as income rises. The authors interpret the findings as evidence that in order to increase equity, poor countries need not only to spend more on health, but also to increase prepayments and public spending.

Sen, A. (2002). Why health equity? *Health Econ*, 11(8), 659-666. Full reference

Country/Region: The article is not specific to any country or region.

Study Design: F (Policy paper or non-systematic review). Conceptual paper / editorial piece.

Study Population:
Concepts of health equity.

Measures:
The author does not offer specific measures of equity in the study, but some of the arguments are framed with reference to DALYs (disability adjusted life years) and QALYs (quality adjusted life years).

Definition/Function:
The author offers considerations about the nature of health equity and discusses his interpretation of health equity as a broad discipline. The paper makes the distinction between health inequality and health equity, emphasizing that one should focus on the capability of achieving health rather than on health outcomes per se.

According to the paper, "health equity has many aspects, and it is best seen as a multidimensional concept. It includes concerns about achievement of health, not just the distribution of health care. But it also includes the fairness of processes and thus must attach importance to non-discrimination in the delivery of health care." (665)

Impact/Result:
The article does not offer specific health outcomes.

Lozano, R., Zurita, B., Franco, F., Ramírez, T., Hernández, P., & Torres, J. L. (2001). Mexico: Marginality, Need, and Resource Allocation at the County Level. In T. Evans, M. Whitehead, F. Diderichsen, A. Bhuiya & M. Wirth (Eds.), *Challenging Inequities in Health: From Ethics to Action*. New York: Oxford University Press.

Country/Region: Mexico

Study Design: B (Cross-section with control). Cross-sectional analysis (ecological study at the municipal level).

Study Population: Population in the 2,429 municipalities in Mexico.

Measures:

Socioeconomic variables: ethnicity indicator, based on the proportion of the population speaking a native language; marginality index (MI) at the municipal level, constructed from illiteracy rate, "proportion with incomplete elementary education, proportion earning less than twice the minimum wage, proportion living in towns with less than 2500 inhabitants, proportion of households lacking running water, electricity, sewage, and proper floor, proportion of households living in overcrowded conditions" (281). Availability of health services: "number of physicians, nurses, outpatient rooms, and beds, combined with the number of outpatient visits" (281). State expenditures on health services: imputed variable based on an "index of health care personnel (medical doctors, 30%) and facilities for public institutions (beds, 50%; consultation areas, 20%)" (281). Health outcome variables: number of births, infant mortality rate; mortality rates by cause, age, and sex for 98 diseases; and years of life lost (YLL). Some adjustments were conducted on the health outcome variables.

Definition/Function:

The authors provide a description of the health context at the municipal level in Mexico, and document the disparities that exist between the richer and poorer regions. From 1900 to 1990, life expectancy increased from 30 to 72 years, and under-5 mortality rates decreased from 40% to 4%. Despite these improvements, 8 million people still did not have access to health services in 1994 and 5% of the poorest households spent more than 50% of their income on health. There was a 7 times different in years of life lost (YLL) between richest and poorest regions in 1990-1996. The health system is fragmented, with high- and middle- income people using private services, while the social security system and the Ministry of Health serve people with lower incomes.

Impact/Result:

The authors contrast patterns of health outcomes and health services in the municipalities by levels of marginality. The municipality with the lowest life expectancy at birth, 62 years, is contrasted with the municipality with highest life expectancy, 71 years, which reveals a gap of 9 years. The burden of communicable, maternal, perinatal, and nutritional diseases on YLL is 30% on low marginality municipalities, 48% in high marginality municipalities, and 70% in predominantly indigenous municipalities. The reverse pattern is observed for the burden of noncommunicable diseases on YLL. Low marginality municipalities have 16 physicians per 10,000 versus to 4 per 10,000 in high marginality. The authors estimate that equalizing marginality and redistributing health expenditures between municipalities would reduce inequality of communicable, maternal, perinatal and nutritional diseases by 31%, and by 15% in noncommunicable diseases.

Almeida, C., Travassos, C., Porto, S., & Labra, M. E. (2000). Health Sector Reform in Brazil: A Case Study of Inequity. *International Journal of Health Services*, 30(1), 129-162.

Country/Region: Brazil

Study Design: E (Observation). Observational case study (qualitative and quantitative measures).

Study Population: National health system in Brazil.

Measures:

Population distribution compared with financial resources distribution; percentage distribution of specialized care clinics by type of contract (public, private contracted by government, private); percentage distribution of public and private hospitals; private health insurance coverage; health professional per 1,000 inhabitants, by region; hospital admission rates per 100 inhabitants, by region; inpatient admission rates per 100 inhabitants, by region; age- and sex-standardized health care service utilization rates per 100 inhabitants, by morbidity and per capita family income; access to health care services per 100 inhabitants reporting morbidity, by per capita family income; age- and sex-standardized utilization rates per 100 inhabitants by type of service, for people with morbidity, by family income per capita.

Definition/Function:

The article describes the design and implementation of the Unified Health System in Brazil, with particular emphasis on the health reform process after the introduction of a new federal Constitution in 1988, which established health as a citizen's right and as the state's obligation and responsibility. The authors are particularly interested in the equity outcomes of the implementation of the Unified Health System, and the article defines equity as "a principle governing distributive functions designed to reduce or offset socially unjust inequalities, and it is applied to evaluate the distribution of financial resources and the use of health services" (129).

Impact/Result:

According to the study, "despite regulatory measures to increase efficiency and reduce inequalities, delivery of health care services remains extremely unequal across the country. People in lower income groups experience more difficulties in getting access to health services. Utilization rates vary greatly by type of service among income groups, positions in the labor market, and levels of education" (129).

Lessons Learned:

In spite of the important advances in the regulatory framework, "the inadequate capacity for policy enforcement and a lack of accountability regarding the citizen's right to health" (160) have prevented further advances in terms of equity.

Mackintosh, M. (2000). Do health care systems contribute to inequalities? In D. Leon & G. Walt (Eds.), *Poverty, Inequality and Health* (pp. 175-193). Oxford: Oxford University Press.

Country/Region: United Kingdom, Eastern and Southern Africa (Mozambique, Zimbabwe, Uganda, Zambia, Malawi, Tanzania, and Kenya)

Study Design: C (Systematic literature review). Literature review.

Study Population: Health systems in United Kingdom and Eastern and Southern Africa

Measures:

No explicit measures of equity are offered in the article.

Definition/Function:

The chapter suggests that most of the literature on health and development concentrates either on the impact of health care systems on health outcomes, or on the impact of social inequality on health outcomes. The author then argues that the relationship between social inequality and health care systems is largely unexplored, and offers a conceptual framework exploring this link. According to the author, "social inequality directly shapes inequitable health care systems, and (...) the failure of legitimate claims to health care is a core element of poverty as it is experienced. It follows that commitments to redistributive health care, and notions of the public good that sustain those commitments, have to be actively constituted and sustained within unequal health care institutions." (187)

Impact/Result:

The chapter does not offer evidence of the impact of equity on health outcomes, as its main approach is to discuss the relationship between social inequality and health care systems. However, the author proposes an approach to health sector reform aimed at improving some forms of redistribution. The main elements of this reform approach are: (1) attempting to increase the capacity of the poor to make claims; (2) adhering to a set of principles such as a minimum package of services; (3) being explicit about what inequalities are going to be tolerated in the system; (4) improving transparency about the health care system; (5) establishing limits to the private sector, either through negotiation or through regulation; and (6) taking in to consideration that health care systems have an important impact on feelings of individualism or solidarity in a society.

Victora, C. G., Vaughan, J. P., Barros, F. C., Silva, A. C., & Tomasi, E. (2000). Explaining trends in inequities: evidence from Brazilian child health studies. *Lancet*, 356(9235), 1093-1098.

Country/Region: Brazil (City of Pelotas, Rio Grande do Sul state; and Ceará state)

Study Design: B (Cross-section with control). Time series analysis of epidemiological data sets.

Study Population: Children in the city of Pelotas, Rio Grande do Sul state, and in Ceará state (2 separate datasets).

Measures:

Several health indicators on child health were collected from preexisting surveys. The data was divided by family income group, and including variables on: vaccination, weight- and length-for-age, breastfeeding, diarrhea and oral rehydration therapy, antenatal care, infant mortality rate, cesarean section rate.

Definition/Function:

The article offers no explicit definition of equity. The study proposes an empirical test of the “inverse care hypothesis”, which states that “a new health intervention will tend to increase inequities” (1093). The authors present the inverse care hypothesis as a corollary of the “inverse care law” stated by Tudor-Hart as: “the availability of good medical care tends to vary inversely with the need for it in the population served.”

Impact/Result:

The authors offer empirical evidence of the impact of equity, but they find support for the “inverse care hypothesis”. Their analysis of the Pelotas data shows that “only when interventions have had their maximum impact on the wealthy groups that the inequity gap with the poor begins to improve” (1098).

4. Family orientation

Alper, P. R. (2004). The decline of the family doctor. *Policy Review*(124), 41-62.

Country/Region: United States

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Primary care physicians in the United States

Measures:

No specific measures are offered in the study.

Definition/Function:

The author argues that recent trends in health services in the United States have resulted in declines in the levels of prestige and compensation once held by family doctors. As a result, the principles of primary care, such as longitudinality, have been distorted. To illustrate the declining role of the family physician, the author mentions that people living with chronic conditions tend to see a specialist as “their” doctor. Furthermore, patients who are automatically assigned to a primary care physician by a managed care system often do not trust their providers.

The author suggests while operating costs of primary care clinics have risen sharply and average debt level of recent medical graduates, family physicians are paid much less than their specialist counterparts, which has diminished the attractiveness for primary health care. Also, the author claims that the opportunity for medical competition on primary care has also been reduced. Physicians and clinics have reduced ability to find new ways to provide better services since the insurance companies have strong influence on the provision of services and selection of doctors.

Impact/Result:

The author suggests that although universal health insurance has the potential to address many of the problems with the declining role of family medicine, any reform effort should follow a certain set of guidelines, including: guarantee of choice, increased regulatory flexibility, correction of economic distortions and high administrative costs, and preservation of space for both small and big businesses within medicine.

Tambini, G. (2004). *Family and Community*. Washington, DC: Pan American Health Organization.

Country/Region: Americas.

Study Design: F (Policy paper or non-systematic review). Policy presentation.

Study Population: Health systems in the Americas.

Measures:

Although explicit measures of family orientation are not given, a family health approach could be assessed through the presence of: orientation of continuity and comprehensiveness; vigilance of the determinants of health; enhanced interactions between providers and users and with other sectors; orientation based on user needs; quality, equitable and efficient care; and pursuit of the establishment or strengthening of families' social support networks at the community level, at the workplace or through social and religious networks.

Definition/Function:

The presentation defines a family health approach as "an approach and a model of care that respond to the health needs of families." Moreover, the presentation argues for the importance of the partnership between primary health care and family health.

Impact/Result:

No explicit impacts or results of family orientation are offered in the presentation.

Montenegro, H. (2003, 12-14 de noviembre de 2003). *Las Claves Para la Implantación del Nuevo Modelo ed Salud (Medicina) Familiar y Comunitaria*. Paper presented at the V Congreso Chileno de Medicina Familiar y Comunitaria, Valdivia, Chile.

Country/Region: The Americas.

Study Design: F (Policy paper or non-systematic review). Conceptual presentation / policy presentation.

Study Population: Family and community health systems in the Americas.

Measures:

The strength of family and community health systems in the countries across the Americas is assessed by indicators such as: percentage of the population served by family doctors; existence of residence programs for family doctors; certification of family medicine.

Definition/Function:

The author provides a description the current state of family and community medicine in the Americas, as well as analyses about the main obstacles and recommendations for its implementation in the region. The author also suggests a model for managing change in health systems during the implementation of family and community medicine, and briefly presents the case of the Family Health Program in Brazil (Programa Saúde da Família). According to the presentation, the progress of family medicine in the Americas has been slow (only 5 countries have more than 10% of doctors working in family medicine and primary health care), and there are important obstacles for the advancement of family health in the academia and government. Given this context, the strategy for the implementation of family and community medicine should be to rely on the reform of health systems, with increased focus on primary health care. The tools of strategic management and organizational development should be used as means to implement these reforms.

Impact/Result:

The presentation presents the case of the Family Health Program in Brazil, and attributes its success to the following elements: high political priority, appropriate use of financial incentives, training of human resources, use of social marketing, and national consensus. In the Brazilian model, a family health team is responsible for an area where on 1,000 families or 3,450 people live, on average. According to the author, at the time of the presentation there were 15,000 family health teams working in 4,000 municipalities, and serving 50 million people (approximately 30% of the Brazilian population).

Pan American Health Organization. (2003, September 22-26 2003). *Family and Health*. 44th Directing Council, 55th Session of the Regional Committee., Washington, D.C.

Country/Region: Americas

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health systems in the Americas.

Measures:

No explicit measures of family orientation are offered.

Definition/Function:

According to the document, "family unit is the social structure where the basic behaviors that determine a person's health status, such as exposure to health risks and behavioral patterns in the presence of illness, are first established."

The family focus advocated by the document aims to "improve family health, family lifestyles, and family and community setting through increased access to and use of integrated, evidence-based, appropriate, and sustainable interventions for reducing malnutrition, preventing infant and maternal mortality, and the spread of HIV/AIDS, STIS and other communicable diseases; particularly among children and young people, and to ensure adequate health care for the elderly and other vulnerable populations."

Impact/Result:

The document reports experiences with the family health approach in the Latin America in which positive results have been achieved, but specific evidence is not offered. Among the cases mentioned are Project Hope in Ecuador, Chile's family-oriented care model developed in the context of a reform in the health sector, Brazil and Chile's use multidisciplinary teams, as well as Brazilian and Cuban models of focusing families in their communicates with publicly funded programs and integrated delivery of services.

Warman, A. (2001). Living the revolution: Cuban health workers. *J Clin Nurs*, 10(3), 311-319.

Country/Region: Cuba

Study Design: E (Observation). Ethnography study.

Study Population: Family health physicians and nurses in Cuba.

Measures:

Given that the main focus of the study is ethnographic, measures are used only to provide the national health context for the work of primary care physicians and nurses in Cuba.

Definition/Function:

The article presents the perspective of family physicians and nurses in Cuba. The author's characterization of the work of health professional is the following: "Family doctors are usually young women completing their specialist training. They work in health centers in apartment blocks in which they also live. They work closely with nurses and other health and social service workers. Health workers are expected to live and work in their own communities, to act as role models for their patients, and to be available at all times. Whilst this has led to an extremely well-informed population and accessible healthcare, it has brought costs to healthcare workers in terms of very high expectations, a feeling that they do not have a private life, and stress caused by the inability to meet patient demands in the face of shortages of medicines and other supplies as a result of the continuing US trade blockade" (311).

Interestingly, the author suggests that the "pressures and frustrations for healthcare workers may have parallels in Western healthcare services which are subject to resource constraints" (311). An example of such parallel is the nurses who decide to leave the National Health Service in the UK due to shortages of basic supplies.

Impact/Result:

Just as a characterization of the context within which the family physicians and nurses work in Cuba, the article mentions secondary references with national-level indicators, such as: the number of physicians in Cuba is 60,129, and the number of nurses is 76,013; the doctor patient ratio of Cuba is 1 to 300, which is better than those of the US or the UK; infant mortality rates in Cuba were 13.3 per 1000, while the rate for Black Americans was 17.9 per 1000 and in some cities like Washington, DC this number reached 22 per 1000.

Waitzkin, H., Wald, K., Kee, R., Danielson, R., & Robinson, L. (1997). Primary care in Cuba: low- and high-technology developments pertinent to family medicine. *J Fam Pract*, 45(3), 250-258.

Country/Region: Cuba

Study Design: E (Observation). Descriptive case study (qualitative).

Study Population: Primary health care system in Cuba.

Measures:

The article cites measures in order to illustrate some arguments. Some of the measures cited are: physician-per-population ratio; immunization rates; number of patients served by each family physician; percentage of female physicians; percentage of the population who are willing to donate organs.

Definition/Function:

The article the primary health care system in Cuba and argues that it pursues a particularly effective combination of low-technology and high-technology approaches. The authors argue that the improved scientific and clinical exchange between the US and Cuba would be beneficial to physicians and patients alike in both countries.

Among the low-technology developments, the most important is the emphasis on family medicine, which originated in the mid-1970s with the "Medicine in the Community" program and gained strength in 1984 with the "Internal General Medicine" program. Within the latter program, all medical residents must complete 3 years of training in family medicine regardless of their future decisions about specialization.

The family physicians typically live in the communities they serve and provide primary care for 700 to 800 patients in their neighborhoods. Family physicians are required to see every patient at least twice a year and to maintain a detailed record of patients' medical history, which is reviewed by an academically-based family physician. A network of referrals support the practice of the family physician and in case of hospitalization, the family physician visits the hospital in person to coordinate continuity of treatment after discharge. A few other details about family physicians are also offered in the article, such as the participation of females, which are estimated to be 48% of all physicians and 61% of all family physicians in the country.

Impact/Result:

The article does not offer direct evidence of impact of family physicians, but it mentions a some national-level indicators such as Cuba's physician-per-population ratio, which is 1 to 255, while that of the US is 1 to 430, and immunization rates in the country, which have remained between 99% and 100% of the target population for several years.

Campos, N. H., Urzúa, R. F., & Polanco, I. R. (1985). Familia y salud familiar. Un enfoque para la atención primaria. *Boletín de la Oficina Sanitaria Pan Americana*, 98(2), 144-155.

Country/Region: Not specific to a country or region, but the paper is based on research conducted in Chile.

Study Design: F (Policy paper or non-systematic review). Conceptual/theoretical paper.

Study Population: Family health care approaches.

Measures:

The paper presents a categorization of families according to their stage in a family life cycle which includes the following 5 stages: formation; expansion; consolidation and opening; dissolution. The paper also discusses a 12-point scale of family functioning based on indicators of communication, solidarity, affection, distribution of tasks, decision-making, and conflicts.

Definition/Function:

The authors argue that the family focus is a strategic approach to guide the actions of primary care physicians and health teams. The argument is motivated by the importance of psychosocial factors at the primary level of health care, and the growing demands for better quality of care. The paper also presents a model for the evaluation of family health components based on adaptability, participation, growth gradient, affection, and resolution, and discusses the use of a questionnaire that has the purpose to rate family functioning on a 12-point scale. These instruments could be used to assess the influence of the occurrence of illnesses on family environments, and vice-versa.

Impact/Result:

The paper does not present evidence of impacts, but the authors make a call for studies that evaluate the impacts of individual illness on the quality of family relationships, and vice-versa.

5. Coordination / Integration

Armstrong Schellenberg, J., Bryce, J., de Savigny, D., Lambrechts, T., Mbuya, C., Mgalula, L., et al. (2004). The effect of Integrated Management of Childhood Illness on observed quality of care of under-fives in rural Tanzania. *Health Policy Plan*, 19(1), 1-10.

Country/Region: Tanzania

Study Design: B (Cross-section with control). Stratified random samples of health facilities in intervention and non-intervention districts.

Study Population: Health workers and children's caretakers.

Measures: Correct application of IMCI diagnostic algorithm. Diagnosis of childhood illness (compared with gold standard re-examination). Care taker knowledge.

Definition/function:

The working definition of integration in this article is focused on the Integrated Management of Childhood Illness (IMCI) strategy, which "includes complementary interventions designed to address the major causes of child mortality at community, health facility, and health system levels." (1)

Impact/Result:

Compared with health workers in districts that had no IMCI training, those who underwent IMCI training were more likely to: properly assess children (check for fever, cough, diarrhea; weigh child; assess feeding practices); provide necessary vaccinations; correctly diagnose illnesses; correctly treat children for pneumonia, malaria, and anemia; and properly advise caretakers on danger signs and use of prescribed drugs.

Kalk, A., & Fleischer, K. (2004). The decentralization of the health system in Colombia and Brazil and its impact on leprosy control. *Lepr Rev*, 75(1), 67-78.

Country/Region: Colombia and Brazil

Study Design: E (Observation). Case studies, including analyses of legislation, epidemiological indicators, local publications, and semi-structured interviews with key informants.

Study Population: Leprosy control programs and health systems of Colombia and Brazil.

Measures:

While no measures of integration or coordination are given, decentralization was assessed by the devolution of technical responsibility and financial resources to the municipalities.

Definition/Function:

The article focuses on the relationship between the vertical and horizontal dimensions of health systems in Brazil and Colombia, as it explores the impact of decentralization of the health system in general on a leprosy control programs.

Impact/Result:

The study found mixed results for the impact of decentralization: while access to preventive and curative health care and community participation in decision-making improved in Brazil, dubious effects on service quality and public health were observed in Colombia. The author concludes that "leprosy control in Brazil took advantage of the decentralization process; in Colombia, it came close to a collapse."

Ruiz Abril, M. E., & Fernandez Diaz, J. M. (2004, Maio 2004). Servicios integrados para luchar contra la mortalidad materna en Nicaragua. *En breve*, 47.

Country/Region: Nicaragua

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Integrated clinics for women's' health.

Measures:

The paper uses measures of coverage for deliveries performed at the women's' health clinics.

Definition/Function:

The paper refers to integration as a comprehensive package of services for women's' and maternal health, offered at local clinics.

Impact/Result:

The authors claim that preliminary information indicates considerable reduction in maternal mortality after the implementation of women's' clinics, but the analysis of the data is superficial and other factors may explain the trends in the data.

Rothman, A. A., & Wagner, E. H. (2003). Chronic illness management: what is the role of primary care? *Ann Intern Med*, 138(3), 256-261.

Country/Region: United States

Study Design: F (Policy paper or non-systematic review). Literature review / conceptual paper.

Study Population: Primary health care models.

Measures:
The article does not discuss specific measures.

Definition/Function:
The main argument of the article is that the design of the health care system, and not the specialty of the physician, is the major determinant of quality of chronic care. The authors point out that although many articles in the specialty literature have advocated the use of specialty care as a way to increase quality of chronic care, the defining characteristics of primary health care make it particularly well suited for the patients with chronic conditions. Continuity, coordination and comprehensive are cited as the main characteristics of primary health care that make it well suited to the treatment of chronic care.

Based on literature reviews, the authors argue that the interventions that are most effective to improve chronic care quality tend to be complex and to include multiple areas, such as “activities directed at changing clinician behavior, changes to the organization of practice, information systems enhancements, and educational or supportive programs aimed at patients” (258). Therefore, improvements in primary care performance among patients with chronic conditions are most likely to be achieved by changing the system of care, rather than turning directly to specialty care.

Impact/Result:
Although direct evidence of impact is not presented in the paper, the authors rely on secondary analyses to argue in order to improve quality of chronic care, changes in delivery systems should be made with the goal to “integrate population perspectives and person-centered perspectives and interventions” (260). Within this approach, “primary care can play a strong role in chronic illness care, but system support and improvements are critical to its success” (260).

Unger, J. P., De Paepe, P., & Green, A. (2003). A code of best practice for disease control programmes to avoid damaging health care services in developing countries. *Int J Health Plann Manage, Suppl 1*, S27-39.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Conceptual paper / Policy paper.

Study Population: Health care services in developing countries.

Measures:

Rather than measures, the article presents the following typology of disease control programs: vertical program (no integration at all); integrated program (operational and administrative integration); and indirect programs (operational integration alone).

Definition/Function:

The authors argue that the design and implementation of disease control programs should be conducted carefully in order to avoid damaging the existing infrastructure of health care services in developing countries. The article suggest four principles that should be followed to ensure integration of disease control programs with existing health care services: 1) "Disease control activities should generally be integrated, with the exception of certain well-defined situations. They should be integrated in health centres, which offer patient centred care"; 2) "Disease control programmes should be integrated in not-for-profit health facilities"; 3) "Disease control programmes should plan to avoid conflict with health care delivery"; and 4) "The administration of disease control programmes should be designed and operated to strengthen health centres" (S35).

Impact/Result:

The article does not present evidence of impact, but the authors stress that there are two essential conditions for the appropriate integration of disease control programs: "disease control needs to be integrated with general health care delivery and in particular patient centred care; integration of both operational and administrative aspects should be taken simultaneously" (S37).

Briggs, C. J., Capdegelle, P., & Garner, P. (2001). Strategies for integrating primary health services in middle- and low-income countries: effects on performance, costs and patient outcomes. *Cochrane Database Syst Rev*(4), CD003318.

Country/Region: India, Nepal, Tanzania, Togo

Study Design: C (Systematic literature review). Literature review.

Study Population: Productivity, coverage, impact, user acceptability, and unit cost.

Measures:

Integrated primary care delivery versus vertical primary care services.

Definition/Function:

The review focuses on integrated primary health care, which is defined as: "Integration of primary health care is a variety of managerial or operational changes to health systems to bring together inputs, organisation, management and delivery of particular service functions. Integration aims to improve the service in relation to efficiency and quality."

Impact/Result:

In one study, integration showed a positive effect on outputs; in another study integrated programs had outcomes similar to those of vertical programs. In the remaining two studies, integrated programs performed worse than vertical ones.

Nigenda, G., Orozco, E., Guzman, M., Mora, G., Lockett, L., & Pacheco, C. (1998). The role of priority programmes in the provision of health services in the state of Oaxaca, Mexico. *Health Policy*, 43(2), 125-139.

Country/Region: Mexico (Oaxaca state)

Study Design: E (Observation). Qualitative; ethnographic study.

Study Population: Five priority health programs (basic sanitation, tuberculosis, vaccination, acute respiratory infections and acute diarrheal diseases).

Measures:

While explicit measures of integration are not offered, the article discusses and compares the availability of resources for the five health programs under study.

Definition/Function:

The study focuses on the level of coordination of between health policy at the local level and at the state/national levels. The framework adopted by the study has health policy as a dependent variable, affected by four internal variables with regards to the local level, namely health services, the population, local economics, and local politics, and four external variables, which are the social and health state policy, indigenous state policy, social stratification of Mexican society, and national economy.

Impact/Result:

The study concludes that “vaccination and diarrheal disease programmes have been highly successful in involving the population and achieving their operative targets” (125), which the authors credit to the abundant access to resources in these programs. However, the authors also mention that the concentration of funds for some programs result in the lack for others. Furthermore, the study found that “despite partial successes, all programmes face serious operational difficulties demonstrating, in turn, the lack of capacity of health services to respond to the specific demands of local populations.” (125)

6. Intersectorial action

Dohn, A. L., Chavez, A., Dohn, M. N., Saturria, L., & Pimentel, C. (2004). Changes in health indicators related to health promotion and microcredit programs in the Dominican Republic. *Rev Panam Salud Publica*, 15(3), 185-193.

Country/Region: Dominican Republic

Study Design: B (Cross-section with control). Pre- post- analysis of interventions across three groups: microcredit vs. health promotion vs. microcredit and health promotion.

Study Population: Low income population in the Dominican Republic.

Measures:

Eleven indicators (calculated as proportions) were used as health outcomes for the interventions, categorized in 3 groups. First, indicators related to knowledge: understands the importance of water purification; understands use of oral rehydration solution in diarrhea management; recognizes signs of serious illness in a child. Second, indicators related to behavior: households using potable water; hand-washing before food preparation; households using sanitary garbage disposal; children 5 yr old and under having completed the basic vaccination scheme; women who had a Pap test within the past year; women who practice monthly breast self-examination. Third, indicators related to illness rates: children with diarrhea in the past 30 days; children with acute respiratory infection in the past 30 days.

Definition/Function:

The study aims to evaluate the impact of health promotion and microcredit programs on health indicators in low-income communities. The main hypothesis of the study is that a combination of health promotion and microcredit interventions should produce the largest impact on health outcomes, when compared to the two interventions implemented separately. The authors point out that several studies have established the relationship between economic development and health status at the macro level. In the study of health promotion and microcredit in Costa Rica, the authors frame their analysis as a test of the claim that intersectorial action are also important at the micro level.

Impact/Result:

The results indicate that there were no significant changes in the outcomes for the community that received the microcredit program only. In the community that received the health promotion program only, there were significant changes in 5 out of the 11 proportions: understands the importance of water purification (+0.31, $p < .05$); recognizes signs of serious illness in a child (+0.37, $p < .05$); children 5 yr old and under having completed the basic vaccination scheme (+0.37, $p < .05$); women who had a Pap test within the past year (+0.43, $p < .005$); children with acute respiratory infection in the past 30 days (-0.35, $p < .005$). In the community that received both programs, there were significant changes in 8 out of the 11 proportions: understands the importance of water purification (+0.48, $p < .01$); understands use of oral rehydration solution in diarrhea management(+0.64, $p < .01$); recognizes signs of serious illness in a child (+0.76, $p < .01$); households using potable water (+0.34, $p < .005$); hand-washing before food preparation (+0.61, $p < .05$); children 5 yr old and under having completed the basic vaccination scheme (+0.72, $p < .01$); women who had a Pap test within the past year (+0.55, $p < .01$); children with diarrhea in the past 30 days (-0.43, $p < .005$).

Morris, S. S., Olinto, P., Flores, R., Nilson, E. A., & Figueiro, A. C. (2004). Conditional cash transfers are associated with a small reduction in the rate of weight gain of preschool children in northeast Brazil. *J Nutr*, 134(9), 2336-2341.

Country/Region: Brazil (Northeastern region).

Study Design: A (Experiment, quasi experiment, or time series analysis). Quasi experimental case-control design (cross-section with matched control group).

Study Population: Children under three years of age and their parents.

Measures:

Dependent variables: weight-for age Z score; height-for-age Z score. Independent variables of interest: beneficiary of Bolsa-Alimentação (cash aid for nutrition conditional on uptake of preventive health services); beneficiary of Bolsa-Escola (cash aid conditional on school attendance). Control variables (used for matching): educational level of women aged 15-49; flooring materials in homes (earth, tiles, cement); water source at home; telephone at home; family size.

Definition/Function:

The study offers an empirical evaluation of the impact of the Bolsa-Alimentação program, which was designed with the purpose of reducing malnutrition among infants. The program was implemented in a two-stage process: first, the Ministry of Health allocated funds to municipalities in Brazil according to the proportion of infants suffering from malnutrition, and then households with a reported per capita income less than the minimum wage were identified for enrollment. The study assessed the impact of the program in 4 municipalities in northeastern Brazil by “comparing 1387 children under 7 years of age from program beneficiary households with 502 matched nonbeneficiaries who were selected to receive the program but who were subsequently excluded as a result of quasi-random administrative errors” (2336). In a second analysis, the growth trajectories of “472 beneficiaries and 158 excluded children under 3 years of age” were monitored through their recorded weights on the Ministry of Health monitoring cards.

Impact/Result:

The results of the first impact evaluation indicated that “6 months after the benefits began to be distributed, (...) beneficiary children were 0.13 Z scores lighter (weight-for-age) than excluded children, after adjusting for confounders ($P=0.024$)” (2336). The second analysis showed that “each additional month of exposure to the program was associated with a rate of weight gain 31 g lower than that observed in excluded children of the same age ($P<0.001$)” (2336).

Lessons Learned:

The authors interpret the findings as evidence that the “failure to respond positively to the program may have been due to a perception that benefits would be discontinued if the child started to grow well. Nutrition programs should guard against giving the impression that poor growth will be rewarded” (2336).

World Health Organization. (2004). *The sanitation challenge: turning commitment into reality*. Geneva: WHO.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Sanitation systems policies in developing countries

Measures:

The paper focuses on goals related to sanitation, including: access to basic sanitation; sanitation in public institutions, especially schools; adoption of safe hygiene practices; integration of sanitation into water resource management strategies.

Definition/Function:

This policy paper advocates the provision of sanitation as a key development intervention: “simply having access to sanitation increases health, well-being and economic productivity.” (2) Therefore, the main message of the document is to mobilize a set of relevant actors to achieve sanitation provision goals. Among the target audience of the paper are national governments, district/local governments, communities and civil society, households, entrepreneurs, and international organizations.

Impact/Result:

Although the document does not provide a systematic review of the impact of access to sanitation, it indicates a large number of successful or potentially successful approaches to the provision of sanitation in developing countries. The promising experiences and approaches are briefly described in boxes throughout the document.

Serrano, R. (2003). *What Makes Inter-Agency Coordination Work?* Washington, DC: Inter-American Development Bank.

Country/Region: Americas, with case studies of programs in Argentina and in Panama

Study Design: F (Policy paper or non-systematic review). Conceptual paper, combined with case studies.

Study Population: Coordinated programs for development

Measures:

No explicit measures of interagency coordination are offered in the article.

Definition/Function:

The paper lists three main reasons for interagency coordination: "(a) causes of poverty are multiple and interrelated, and therefore attacking them requires an intersectorial approach; (b) coordination can generate economies of scale; (c) the fragmentation of multiple and overlapping targeted programs requires coordination at the service delivery level." Some arguments can also be made against coordination: agencies tend to protect their independence; it may be difficult to coordinate routines and procedures; goals may differ among agencies; stakeholders put different types of pressure on each agency.

Despite the existence of argument for and against coordination, the paper argues that recent trend towards results-oriented management have made collaboration a necessity. However, successful collaborations requires a certain set of conditions to be in place, including: "effective leadership; flexibility and discretion; building a common sense of purpose; clients and beneficiaries participation; replacing a culture of bureaucracy with one of pragmatism; emphasizing negotiation and conflict reduction among partners; minimize political turbulence; limiting membership to the smallest number of participants."

Impact/Result:

The first case study presented in the paper is the Program "*Plan Jefas de Hogar*" (PJH), which comprises supplemental income and other social services to female heads of household. According to the author, PJH was successful in coordinating across sectors and jurisdictions, "reorienting social spending priorities from the three levels of government, directing provincial/municipal social spending towards a better structure and coordinated program, instead of the ineffective temporary enrollment projects that existed before."

The second case study presented in the paper is the Darien Sustainable Development Program, which is a package of development interventions implemented in the poorest region of the Panama. The program includes actions in the following areas: roads and transportation, land use planning, institutional strengthening, sustainable production, and basic public services. According to the author, the results of the program have been mixed. While coordination at the national level has been hard to achieve, coordination between local government and civil society has worked better.

Inter-American Development Bank. (2002). *El sector salud en los proyectos del BID. Una evaluación preliminar*. Washington, DC: Inter-American Development Bank.

Country/Region: Americas

Study Design: C (Systematic literature review). Document review.

Study Population: Health projects in the portfolio of the Inter-American Development Bank.

Measures:

The paper assesses measures of health project implementations, including the following measures: number of projects that were approved by the bank; average time of project execution; average amount of project disbursement.

Definition/Function:

The paper offers a typology of health projects, covering the following areas: infrastructure, public health, primary care, personnel capacity building, health system reforms, and health sector reform. The paper also includes the following areas that have health components: social development funds, affirmative action, social sector reform, social security reform, state reform, urban and regional development, multiple construction projects, and poverty alleviation.

Impact/Result:

The paper conducts a document review in order to assess the evolution of health projects over time funded by the Inter-American Development Bank. The results presented are basic descriptions of the implementation of projects. The health sector accounts for 5.2% of the number of projects and 3.4% of the funds allocated for projects within the bank's portfolio. The greatest increase in the participation of health projects started in the nineties and was particularly strong between 1992 and 2001. The average execution time of health projects in the Bank is 7.8 years.

Carrasquilla, G. (2001). An ecosystem approach to malaria control in an urban setting. *Cad Saúde Pública*, 17(Suppl), 171-179.

Country/Region: Colombia (region of Buenaventura).

Study Design: B (Cross-section with control). Pre-post analysis of malaria reduction intervention.

Study Population: Low income population of Buenaventura, Colombia.

Measures:

The study included a number of factor associated with the occurrence of malaria, including the following dimensions: recent migration; description of location of the intervention; description of major economic activities in the area; measures of climate, including rainfall and temperature; entomological factors, including intra and extradomiciliary bite rates; health services; elements of primary health care, including score for community participation, intersectorial approach, management of health institutions and health services organization; knowledge and practices, including knowledge of the malaria mosquito, elimination of breeding sites, use of bednets, use of spraying; resistance, measured as use of self-medication and insufficient dosage of medication; and individual risk factors, including rural and urban occupations, and age group. Other dimensions included in the study are: socioeconomic and ecological variables, including income, cultural factors, social capital, and health sector reform.

Definition/Function:

The author draws attention to the multisectorial dimension of malaria control by arguing that “malaria arises from a complex interaction of cultural, economic, ecological, social, and individual factors” and that “intervention measures require an intersectorial and transdisciplinary approach that does not exist at the moment” (171). As an application of this concept, the study offers an interpretation based on the ecosystem approach of data on a malaria control intervention in Buenaventura, Colombia.

Impact/Result:

Based on the reinterpretation of the malaria control intervention data, the author suggests that limited leadership in the health sector and lack of community participation have prevented the implementation of an intersectorial and transdisciplinary approach that is required for effective control of malaria.

Rokx, C. (2000). *Who Should Implement Nutrition Interventions? The Application of Institutional Economics to Nutrition and the Significance of Various Constraints to the Implementation of Nutrition Interventions*. Washington, DC: World Bank.

Country/Region: Developing countries

Study Design: D (Cross-section without control). Regression analysis of factors affecting disbursement rates on World Bank projects.

Study Population: World Bank projects that included nutrition interventions between 1976 and 1993

Measures:

Political commitment was assessed by the existence of National Plan of Action for Nutrition, and the assignment of the nutrition intervention to an independent agency, rather than a line unit of a ministry. Intersectorial action was assessed by the involvement of more than one sector, according to project documentation. Institutional capacity development was measured by the number of capacity building actions included in the project. The complexity of projects was measured by an index including management, logistic, planning, and time requirements. The model also included the percentage of funds allocated to nutrition as a proportion of total credit, the percentage of disbursement of total credit, and the use of the appropriate mechanism of service delivery according to Hirschman trilogy of incentives (exit, voice, and loyalty). The dependent variable in the model is the percentage of disbursement of credit allocated to nutrition interventions.

Definition/Function:

The purpose of the study is to investigate the main factors that affect the disbursement rates of World Bank nutrition programs, with an aim to improve project design and implementation. The main hypothesis that the study aims to test is “that the effective use of available funds for nutrition in World Bank-supported projects is impeded primarily by the lack of an institutional home for nutrition and by the related question of responsibility for delivering nutrition services.”

Impact/Result:

According to the author, the most important factors that affect the implementation of nutrition interventions are: use of the appropriate mechanism of service delivery according to Hirschman trilogy of incentives; the inclusion of institutional development interventions; and the disbursement of total credit. Together, these three variables explain 80% of the variation in the disbursement of funds allocated to nutrition in World bank-supported projects. It should be noted that the results were obtained from a ordinary least squares regression, estimated using the stepwise technique.

7. Person focus / Longitudinality

Simon, J., Rosen, S., Claeson, M., Breman, A., & Tulloch, J. (2001). *The Family Health Cycle. From Concept to Implementation*. Washington, DC: World Bank.

Country/Region: Developing countries, with country-specific examples for Jamaica and Dominican Republic (social protection), China and the Philippines (health services), Senegal (nutrition), Brazil and India (health sector analysis), and sub-Saharan African countries (education)

Study Design: F (Policy paper or non-systematic review). Conceptual paper / Policy paper.

Study Population: Public health policies and programs

Measures:

The main age categories used for the definition and organization of the family health cycle approach are: young infant from 0 to 2 months old; childhood from 2 to 59 months old; pre-puberty school age from 5 to 13 years old; reproductive potential adults from 13 to 49 years old; and a final period after the reproductive potential has passed.

Definition/Function:

The paper argues that “producing health for an individual – a child, a mother, or anyone else – is the task of an entire ‘family health system’ ” (5) Thus, health interventions are organized in an integrated fashion, as opposed to disease-specific, relating the members of the family health system across time.

Impact/Result:

The life-cycle approach has been suggested or adopted in the following cases: a project pilot in reproductive health in the Philippines; supervision for a maternal and child health project in China; a sector study to inform a family health project in Brazil; a study supported by the World Bank to reduced child mortality in India. Based on the case studies, the paper does not offer clear evidence of the impact of the family health cycle approach. However, the authors suggests that preliminary evaluations have been positive in these countries, and the life-cycle approach can be a very useful tool for organizing health polices and programs and conducting evidence-based analysis.

Hjortdahl, P., & Laerum, E. (1992). Continuity of care in general practice: Effect on patient satisfaction. *BMJ*, 304, 1287-1290.

Country/Region: Norway

Study Design: D (Cross-section without control). Cross-sectional survey.

Study Population: Primary care patients in Norway

Measures:

The main outcome variable of interest was overall satisfaction score, rated on a six-point scale. The main independent variable of interest was continuity of care, measured as “the duration and intensity of the present patient-doctor relationship and as patients’ perception of the present doctor being their personal doctor or not”.

Definition/Function:

The objective of the study was to investigate the impact of continuity of care on patient satisfaction.

Impact/Result:

The results indicate that “an overall personal patient-doctor relationship increased the odds of the patient being satisfied with the consultation sevenfold (95% confidence interval 4.9 to 9.9) as compared with consultations where no such relationship existed. The duration of the patient-doctor relationship had a weak but significant association with patient satisfaction, while the intensity of contacts showed no association”.

Gill, J., & Mainous, A. (1998). The Role of Provider Continuity in Preventing Hospitalizations. *Archives of Family Medicine*, 7(4), 352-357.

Country/Region: United States

Study Design: B (Cross-section with control). Case-control, non-randomized study.

Study Population: Delaware Medicaid patients.

Measures:

The main outcome measure was the likelihood of hospitalization for all conditions and for ambulatory care-sensitive conditions.

Definition/Function:

The paper defined continuity of care as “seeing the same health care provider over time”. The study analyzed paid claims to the Delaware Medicaid over a period of two years (from July 1, 1993 to June 30, 1995). The Medicaid patients who had at least 3 ambulatory care visits during the first year of the study were categorized into one of two groups: the first group included patients who had seen the same health care provider in all of their ambulatory care visits, while the second group included patients who had seen different health care providers in their ambulatory care visits.

Impact/Result:

The patients who had continuity of care within the first year had significantly lower likelihood of hospitalization for any condition within the second year of the study (odds ratio=0.54; 95% C.I., 0.35-0.88), but for “acute ambulatory care-sensitive conditions there was no significant association (odds ratio=0.80; 95% CI, 0.48-1.34)”.

The authors concluded that “continuity of care with a provider is associated with a decrease in future likelihood of hospitalization in the Delaware Medicaid population”, but “the study does not support the hypothesis that a certain set of conditions are particularly ambulatory care sensitive”.

Lambrew, J., DeFriese, G., Carey, T., Ricketts, T., & Biddle, A. (1996). The effects of having a regular doctor on access to primary care. *Med Care*, 34, 138-151.

Country/Region: United States

Study Design: B (Cross-section with control). Multivariate analysis of cross-sectional data.

Study Population: Non-institutionalized population of the United States.

Measures:

Access to care was measured by a group of indicators, including: receipt of childhood immunizations; receipt of clinical breast examination and pap smear test for women; use of physician services by people in poor health; hospitalization for ambulatory care sensitive conditions for people older than 65 (as an indication of poor access).

The relationship of patients with the health care system was measured by: "(1) whether or not the individual had a regular source of care, (2) whether or not the individual had a regular doctor, and (3) the type of site of care that the individual used". This last dimension could be either a "mainstream site", such as physician's offices, physician's clinics, and HMO's or "other sites", such as hospital outpatient departments, emergency rooms, family health centers, walk-in centers, etc.

Definition/Function:

The article focuses on longitudinality defined as having a regular doctor in primary care. The main objective of the study was to assess "the relationship between having a regular doctor and access to care".

Impact/Result:

The results indicate that "individuals with any type of regular source of care had better access than those without a regular source of care. Persons with a regular doctor had better access to primary care than those with a regular site but no regular doctor. However, the apparent advantage of having a regular doctor over a regular site disappeared when only those individuals reporting a physician's office, clinic, or health maintenance organization as their regular source of care were compared."

Weiss, L. J., & Blustein, J. (1996). Faithful patients: The effects of long-term physician-patient relationships on the costs and use of health care by older Americans. *Am J Public Health*(86), 1699-1700.

Country/Region: United States

Study Design: B (Cross-section with control). Statistical analysis of cross-sectional data.

Study Population: Americans who are 65 years old or older.

Measures:

Outcome measures: percentage who had influenza vaccine previous winter; percentage of women who had mammogram during the previous year; percentage of people who smoke now out of all people who have ever smoked; percentage obese; percentage who used emergency room during the previous year; percentage who had any hospital admissions; mean part A reimbursements; mean part B reimbursements; mean number of office visits.

Definition/Function:

The study investigates the claim that “long-term, sustainable physician-patient relationships are vital to good primary health care and that they promote satisfaction, effectiveness, and a reduction in cost”. The main objective of the article is to examine “the impact of duration of physician-patient ties on the processes and costs of medical care”.

To assess the impact, the authors categorized the duration of tie to usual source of care into 5 groups (less than 1 year, 1-3 years, 3-5 years, 5-10 years, 10 or more years), and analyzed whether there was a difference in means or proportion of sociodemographic characteristics and outcome measures across groups.

Impact/Result:

The findings indicate that “older Americans have long-standing ties with their physicians; among those with a usual source of care, 35.8% had ties enduring 10 years or more. Longer ties were associated with a decreased likelihood of hospitalization and lower costs. Compared with patients with a tie of 1 year or less, patients with ties of 10 years or more incurred \$316.78 less in Part B Medicare costs, after adjustment for key demographic and health characteristics. However, substantial impacts on the use of selected preventive care services and the adoption of certain healthy behaviors were not observed”.

8. Accountability

Brinkerhoff, D. (2004). Accountability and health systems: toward conceptual clarity and policy relevance. *Health Policy and Planning*, 19(6), 371-379.

Country/Region: Developing/transitioning countries.

Study Design: F (Policy paper or non-systematic review). Conceptual paper / policy paper.

Study Population: Health systems and policy in developing/transitioning countries.

Measures:

Accountability can be assessed using the tool described in the “impacts” section below.

Definition/Function:

According to the article, the two main components of accountability are answerability and sanctions. The first component suggests that “being accountable means having the obligation to answer questions regarding decisions and/or actions” (372). The second component refers to the “the availability and application of sanctions for illegal or inappropriate actions and behaviour uncovered through answerability” (372). Based on the existing literature, three types of accountability are distinguished: financial accountability, which in the literature is related to “compliance with laws, rules and regulations regarding financial management”; performance accountability, which is analyzed in the literature of “public sector management reform, performance measurement and evaluation, and service delivery improvement”; and political democratic accountability, which encompasses a broad range of issues ranging from “theoretical and philosophical treatises on the relationship between the state and the citizen, to discussions of governance, increased citizen participation, equity issues, transparency and openness, responsiveness and trust-building” (373). The author further suggests that there are three purposes for accountability: first, “to control the misuse and abuse of public resources and/or authority”; second, “to provide assurance that resources are used and authority is exercised according to appropriate and legal procedures, professional standards and societal values”; and third, “to support and promote improved service delivery and management through feedback and learning” (374), which suggests a primary focus on performance accountability.

Impact/Result:

The author introduces an “assessment matrix to map accountability linkages and to examine actors’ interactions” (376). The matrix is a tool to identify the actors that can demand information and impose sanctions, and the actors that can supply information and are subject to sanctions, thus providing information on the two components of accountability. In an effective accountability system, there would be a high number of balanced linkages between demanders and suppliers of information. As applied to health systems, the actors to be listed in the table include: patients/users, ministry of health, regulatory and funding agencies, parliament, local government, NGOs, hospital boards, health councils, professional associations, unions, providers, and international donors. Use of the “accountability lens” could help to “enhance system performance, improve service delivery and contribute to sound policymaking” (371).

Labonte, R., & Schrecker, T. (2004). Committed to health for all? How the G7/G8 rate. *Soc Sci Med*, 59, 1661-1676.

Country/Region: G8 member countries (France, USA, Britain, Germany, Italy, Japan, Canada, Russia).

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Foreign policies of G8 member countries.

Measures:

The operationalization of the commitments of G8 member countries to redistributive policies are listed under the "impact/result" section below.

Definition/Function:

The article analyses the health implications of commitments made by member countries of the G8 group during international summits. In particular, the authors give emphasis to "commitments that relate to the socioeconomic determinants of health (primarily to reducing poverty and economic insecurity) and to the ability of national governments to make necessary basic investments in health systems, education and nutrition" (1661).

Impact/Result:

According to article, on the one hand, the following commitments were kept by the member countries of G8: "provision of debt relief under heavily indebted poor countries initiative"; "creation of the Global Funds to Fight AIDS, Tuberculosis and Malaria"; "recognition of "the need for 'flexibility' with respect to intellectual property protection in order to ensure the availability of essential drugs"; and heavy emphasis on promoting biotechnology to increase agricultural productivity" (1665).

On the other hand, the following commitments were not kept by the member countries of G8: "support for international development goals, 'including the overarching objective of reducing the share of the world's population living in extreme poverty to half its 1990 level by 2015'"; "reducing the number of HIV/AIDS-infected young people by 25 percent, reducing TB deaths and prevalence of the disease by 50 percent, and reducing the burden of disease associated with malaria by 50 percent", all by 2010; "non-specific commitment to strong national health systems"; "non-specific commitments to supporting agriculture through ODA as an element of poverty reduction, to 'target the most food-insecure regions, particularly Sub-Saharan Africa and South Asia'"; and "clear support for Dakar Framework goals re: improving access to education by 2015" (1665).

Based on these findings, the authors suggest that the goals of providing health for all will not be achieved unless stronger commitments to redistributive policies are put into place by G8 countries.

Lammintakanen, J., & Kinnunen, J. (2004). Social and health-care priorities of local politicians in Finland: do the attitudes of politicians reflect the actual processes in municipalities? *International Journal of Social Welfare*, 13, 69-76.

Country/Region: Finland.

Study Design: B (Cross-section with control). Statistics describing a cross-section of local politicians in Finland, from a survey conducted on systematic sample of municipalities.

Study Population: Local politicians in Finland.

Measures:

Measures of characteristics of local politicians: age, education, satisfaction with career of politician. Measures of attitudes of local politicians, considering both a scenario of increased overall budget, and another scenario of decreased overall budget: rank of priority order of health services by local politicians; rank of priority order of social and health services by local politicians. Measures of expenditures in health care: budget allocations to social care primary health care, secondary health care, and environmental health care.

Definition/Function:

The study aims to investigate the relationship between the attitudes of local politicians in Finland and the process of actual allocation of resources to social and health care. The paper suggests that three problems could moderate the relationship between politicians' preferences towards budgets and actual budget allocation outcomes: "1) an unwillingness to discuss the issue coupled with an ignorance of the matter; 2) the unclear roles of politicians in priority-setting; and 3) implementation problems" (70).

Impact/Result:

Data from a 1995 survey indicated that when asked about their preferences for allocation of resources if overall budget was to be cut by 7% between 1993 and 1999, politicians responded that their priority was to dedicating more funds to secondary care. However, if overall budget was to be increased by 7% between 1993 and 1999, politicians gave priority to dedicating fewer funds to secondary care, and more funds to primary care and social care. Subsequent analysis on expenditure data showed that although the overall total budget for Finnish municipalities increased by 25.4% between 1993 and 1999, total budget allocated to secondary care increased by 3.3%; while allocations to primary health care decreased by 8.2%, allocations to social care decreased by 3.7%, and allocations to environmental health care decreased by 8.2%.

The authors interpreted the findings as evidence that the preferences of politicians are not good predictors of actual allocation of resources towards social and health care. Moreover, they suggest that studies of the decision-making processes, rather than studies of preferences may generate better understanding of the actual setting of priorities in Finnish municipalities.

Kickbusch, I. (2003). The contribution of the World Health Organization to a new public health and health promotion. *Am J Public Health, 93*(3), 383-388.

Country/Region: The paper is focused on developed countries in general, and in Europe in particular.

Study Design: F (Policy paper or non-systematic review). Policy paper / conceptual paper.

Study Population: Health systems (national and local).

Measures:
No specific measures are discussed in the paper.

Definition/Function:
The article discusses the concept of health promotion, which shifted the main strategy of public health from focusing on risk factors towards determinants of health. In particular, the author illustrates this change with two initiatives within the European region: the European Health for All targets, and the settings approach.

The member states of the European region of WHO committed to the adoption of the Health for All targets in 1984, and up to the publication date, 27 countries in Europe had committed to these goals. The strategy that the European section of WHO chose in order to achieve the Health for All goals contained a strong element of health promotion, as its design was based on a "social model of health". The settings approach was also an initiative introduced by the European office of WHO focused on health promotion. However, the favored strategy was to move health promotion away from the individual or the community level and towards a whole population group in a given setting.

According to the article, the first health revolution focused on sanitary conditions and infectious diseases, the second health revolution focused on individual behaviors contributing to noncommunicable diseases, and the third revolution will focus on health as a main component of quality of life.

Impact/Result:
According to the article, despite the important changes that were introduced by health promotion, Health for All, and the setting approach, most of the discussion in Europe are still focused on medical expenditures, rather than on the determinants of health.

Kickbusch, I. (2000). The development of international health policies--accountability intact? *Soc Sci Med*, 51(6), 979-989.

Country/Region: The article is not specific to any country or region.

Study Design: F (Policy paper or non-systematic review). Conceptual paper / policy paper.

Study Population: International health organizations.

Measures:
No specific measures are offered in the paper.

Definition/Function:
The paper offers an account of the introduction of the concept of international health policy by the World Health Organization in the 1970s, and gives special emphasis to the Health for All (HFA) initiative, which was championed by the director general Halfdan Mahler. According to the author, by creating specific indicators on health outcomes to be reached by the year 2000, WHO was the first organization within the UN system to make use of accountability. However, as the target date of the HFA initiative approached, it became clear that WHO had not been able to maintain reliable health accountability at the international level. The targets of HFA were missed in several parts of the world, and WHO was implicitly held accountable for the shortcomings in international health.

Despite the difficulties faced by the WHO, the author further argues that globalization has renewed the importance of international health policy, this time viewed within the perspective of global health. The concept of global health emphasizes the characterization of health as a public good, which requires institutions at the global level to enable optimal levels of provision. The author argues that because responsibilities for global public goods can be blurred at the national level, the idea of accountability within the current context new challenges for WHO.

Impact/Result:
Although the article does not discuss specific measures or figures, it mentions that the indicators established in the HFA initiative were a central component of the accountability in international health introduced by the WHO.

C. PRIMARY HEALTH CARE AND HEALTH REFORM

1. Lessons learned from health reform

Schoen, C., Osborn, R., Huynh, P. T., Doty, M., Davis, K., Zapert, K., et al. (2004). Primary Care And Health System Performance: Adults' Experiences In Five Countries. *Health Aff (Millwood)*.

Country/Region: Australia, Canada, New Zealand, United Kingdom, United States

Study Design: D (Cross-section without control). Cross-sectional (descriptive) survey.

Study Population: Adult population in Australia, Canada, New Zealand, UK, and US

Measures:

Measures of access: having a regular primary care physician (PCP); length of time with doctor or usual place; waiting time to get an appointment; difficulty of getting after-hours care without going to the ER; calling a help line for medical advice; having access problems because of costs. Measures of ER use: times respondent went to ER in past 2 years; rating of emergency care services contingent on use; waiting time in ER before being treated; hospital staff did everything to control pain. Measures of coordination: number of health professionals seen in past 2 years; availability of test results at time of appointment; doctors ordered duplicated medical tests; receiving conflicting information from doctors; number of prescriptions taken; doctor reviewed information on all prescriptions taken by patient and explained all side effects; having test results that were not shown or explained; having been given incorrect results for diagnostic or test; regular doctor not seeming informed about up-to-date plans and follow-up care after a patient left a hospital. Measures of doctor-patient relationship: patient rating of overall quality of care from PCP; frequency that doctor listens, explains, and spends enough time with patient; frequency that doctor makes clear the goals for treatment, gives clear instructions about symptoms and informs patient choices about treatment; frequency that patient leaves doctor's office with unanswered questions; frequency that patient doesn't follow instructions. Measures of preventive care and health promotion: any doctor visits; blood pressure check in past year; flu shot in past year for older than 65; percent of women receiving Pap test or mammogram at appropriate intervals for each age group; doctor provided counseling on weight, nutrition, or exercise; doctor diagnosis of chronic disease. Measures of choice: satisfaction with choice of doctors, access to own medical record, ability to communicate with PCP by e-mail.

Definition/Function:

The paper presents the findings from the "2004 Commonwealth Fund International Health Policy Survey", which focuses on primary care and ambulatory care experiences.

Impact/Result:

The results indicated that the US performed relatively well on clinical preventive measures. Patients across countries reported lack of involvement in their treatment, resulting in poor patient-centered care. Patients in Australia and New Zealand reported high rates of access to same-day care outside of ER. Patient cost sharing for primary care seems to undermine accessibility, and access barriers were particularly large in the US. Coordination failures were widespread, as measured by "delays in care, lack of information flow, conflicting advice, and wasted time" (W4-500).

Oliveira-Cruz, V., Kowalski, J., & McPake, B. (2004). Viewpoint: the Brazilian HIV/AIDS 'success story'--can others do it? *Trop Med Int Health*, 9(2), 292-297.

Country/Region: Brazil in particular, and developing countries in general.

Study Design: C (Systematic literature review). Literature review.

Study Population: Population of developing countries; health systems of developing countries.

Measures:

Hospital beds per 1,000; physicians per 100,000; nurses per 100,000; HIV prevalence; national income level.

Definition/Function:

The article reviews the literature on control of HIV/AIDS in developing countries, and analyses the particular conditions that led to the successful results of Brazil's national AIDS program in controlling the HIV epidemic. The Brazilian case is often pointed as an example that developing countries can stop the spread of the HIV epidemic, and the policy of universal access to anti-retroviral drugs (ARVs) is often credited as the main reason for the success. The authors argue that universal access to ARVs was only one component of the success of the Brazilian strategy, and other elements should be taken into consideration.

Impact/Result:

The authors conclude that the success story in Brazil can be attributed to a combination of factors including, in addition to universal access to ARVs, the following elements: "rapid and concerted response of government and civil institutions and groups"; a comprehensive approach including both prevention and treatment; mobilization of a high level infrastructure of clinics, hospitals, and laboratories; low overall prevalence of the disease; and existence of publicly owned pharmaceutical plants ready to produce some of the drugs.

Lessons Learned:

The authors emphasize that they "do not argue that low income countries should not strive for access to anti-retrovirals or for other effective elements of an HIV/AIDS programme." Instead, they suggest that "an appreciation is needed of the multiple capacities, players and activities that seem to form the necessary parts of effective AIDS strategies, and that proper attention must be paid to local potentialities and constraints."
(296)

Waddington, C. (2004). Does earmarked donor funding make it more or less likely that developing countries will allocate their resources towards programmes that yield the greatest health benefits? *Bull World Health Organ*, 82(9), 703-705.

And a response to Waddington's piece: Banerji, D. (2004). Alma-Ata showed the route to effective resource allocations for health. *Bull World Health Organ*, 82(9), 707-708.

Country/Region: Developing countries.

Study Design: F (Policy paper or non-systematic review). Round table.

Study Population: Health systems and donor-funded programs in developing countries.

Measures:

No specific measures are discussed in the article.

Definition/Function:

Waddington argues that there are six problems with earmarked funds: "the multiplicity of earmarked funds confuses the situation for decision-makers; earmarking works against the spirit of the sectorwide approach; from the national perspective, it makes sense not to double-fund activities; local ownership of an activity is often compromised; earmarking can lead governments to accept interventions which they cannot afford in the longer term; and earmarking can distort local resource allocation" (703).

Banerji argues that the findings of health systems research should indicate the most effective way to determine the allocation donor funding, rather than the simple analysis of impacts of earmarked funds. According to Banerji, "donors setting up health agendas for the poor countries is the very antithesis of the repeated, strong commitments to integration of health and health services made by WHO and its member states in 1965, at Alma-Ata in 1978, and in the 'new public health' of 1995" (707).

Impact/Result:

Waddington suggests that the use of earmarked funds is not a guarantee that developing countries will increase their allocation of resources to effective health programs. In favorable policy environments, a better approach would be to provide funds on a sector-wide basis; while in less favorable policy environments, a better approach would be to provide funds aimed at institutional reform and capacity building.

Using the experience of India with Universal Immunization Programmes, Banerji argues that vertical programs funded by donors are not cost effective, are not sustainable and harm the infrastructure of health services, and strongly advocates adherence to the principles of Primary Health Care discussed at the Alma Ata conference.

Lessons Learned:

The use of vertical programs is not a guarantee of better global spending. The implementation approaches based on the Alma Ata Primary Health Care principles could be a more effective path for developing countries, but it has been neglected thus far.

Birdsall, N., & Szekely, M. (2003). *Bootstraps, not Band-Aids: Poverty, equity and social policy*. Washington, DC: Center for Global Development.

Country/Region: Latin America

Study Design: C (Systematic literature review). Literature review / policy paper.

Study Population: Social policies in Latin America.

Measures:

Some secondary measures mentioned in the study are: human capital inequality by region of the world, measured as population weighted standard deviation divided by the mean of years of education; land inequality by region of the world, calculated as a population weighted gini coefficient; structural reform indexes for trade liberalization, financial liberalization, tax reform, privatization and labor reform in Latin America; differences in years of education between rich and poor children; changes in marginal return to education in Latin American countries; changes in poverty rates; correlation between inequality and poverty indicators; wage inequality.

Definition/Function:

The authors argue that poverty and inequality remain very high in Latin America, despite more than a decade of economic reforms and increased spending on education, health and other social programs. The authors further argue that inequality in access to credit, land and education are key factors in explaining low growth in the income of the poor, and rather than addressing the symptoms of poverty, they propose “a more explicitly ‘bootstrap’-style social policy, focused on enhancing productivity via better distribution of assets”. The paper presents a description of the evolution of social policy in Latin America since the Second World War, leading to a fourth generation of policies which is focused on addressing the needs of the poor and attempting to increase human capital simultaneously. Programs such as the Mexican *Progresas*, the Brazilian *Bolsa Escola* and the Chilean *Chile Joven* are examples of this generation, which integrates social policy into an overall development strategy. However, authors point out that there are important constraints to the effectiveness of these programs, since they do not address “the underlying causes of continued high poverty and stubborn inequality” (14). As an example, they mention that although these programs may increase education levels, expected incomes are not increased as much because of constrained labor markets and high levels of unemployment.

Impact/Result:

The authors advocate social policies that are pro-poor and that simultaneously contribute to growth, and suggest that this “can only be done if social policy is at the heart of the development strategy of a country, rather than an opponent constantly competing for public resources that may undermine economic stability. The solution is not compensatory or band-aid measures, but policies that promote efficiency in the economic system and that improve the productivity of the poor.” (14) Some of the recommended by the authors are to mainstream poverty reduction into economic-wide policy, and to change the distribution of assets.

Lessons Learned:

For long-term effectiveness to be achieved, social policy and economic growth policies must be integrated.

Frenk, J., Sepulveda, J., Gomez-Dantes, O., & Knaul, F. (2003). Evidence-based health policy: three generations of reform in Mexico. *Lancet*, 362(9396), 1667-1671.

Country/Region: Mexico

Study Design: E (Observation). Case study, descriptive

Study Population: National health system of Mexico

Measures:

Some of the measures included in the paper to evaluate the performance of the Mexican health system include: mortality from diarrheal diseases in children younger than 5 years; life expectancy at birth.

Definition/Function:

The authors suggest that the process evolution of the Mexican health system can be illustrated by three waves of reform: "The creation of the Ministry of Health and the main social security agency in 1943 marked the first generation of health reforms. In the late 1970s, a second generation of reforms was launched around the primary-care model. Third-generation reforms favour systemic changes to reorganize the system through the horizontal integration of basic functions – stewardship, financing, and provision" (1667). One important development between the second and the third generation of reforms, is a departure from a focus on primary care towards the use of packages of essential health care interventions. Since the second generation of reforms, the Mexican health system has been increasingly based on evidence.

Impact/Result:

The authors associate the continuous reform approach in Mexico and the implementation of policies based on evidence with improvements in health indicators. Mortality from diarrheal diseases decreased at an average of 6.4% per year during 1984-1989, and at 17.8% between 1990 and 1993. The gap in health inequalities also seems to be decreasing, since differences in life expectancy have slowly but steadily decreased since the 1980s.

Lessons Learned:

The authors argue that although the experience of each country is unique, the Mexican case shows a process of continuous progress over time, which can be illustrative for other countries that are conducting reforms. The article also suggests stability of leadership in the health sector and the increased use of evidence contributed considerably to the positive outcomes of reforms. It should be noted that although the third generation of reforms is marked by the use of packaged interventions, the authors do not offer evidence that this approach is better than the primary care model.

Government Chief Social Researcher's Office. (2003). *Trying It Out. The Role of 'Pilots' in Policy-Making*. London: United Kingdom Cabinet Office.

Country/Region: United Kingdom.

Study Design: C (Systematic literature review). Literature review, workshop of experts and surveys with senior government officials.

Study Population: Major government policies or programs (pilots) that were phased in before being rolled out nationally in the United Kingdom and the United States.

Measures:
No specific measures are offered.

Definition/Function:

According to the report, there are two main types of pilots: “**impact pilots** are tests of the likely effects of new policies, measuring or assessing their early outcomes”, while “**process pilots** (...) are designed to explore the practicalities of implementing a policy in a particular way or by a particular route, assessing what methods of delivery work best or are most cost-effective” (8). According to the report, a pilot program should be interpreted as a test-run, so that the early results can actually influence the development of the final policy. However, there have been many cases in which this test-run approach did not take place, which compromises the very rationale for implementing a pilot.

Impact/Result:

In the United States, random assignment of individuals to treatment and control groups have been used for over 30 years, and are seen “as the most reliable way of assessing whether a policy or program is actually ‘working’, who it is working for and at what cost” (21). Evidence on the extent to which pilots have influenced social policy in the US over the years is limited, and studies suggest that they may have had more influence over operational issues than on the content of policies *per se* (Greenberg, 2000). Despite their high regard of random assignment as a methodological tool for pilots, public officials tend to see them as “administratively cumbersome”. In the United Kingdom, the report identified a widespread use of pilots, as well as a large variation in the types of piloting approach. Some important issues that were raised during the preparation of the report were the conflicts between political and research needs during the implementation of pilots, the appropriate level of transparency of results, as well as practical considerations regarding design, resources and technical aspects of pilots. In terms of results, both policy experts and government officials largely agree that pilots have an important role in “encouraging and facilitating innovation” (32).

Lessons Learned:

The use of pilots in policy-making can be an important way to promoting organizational learning and providing flexibility to the creation of policies and programs. However, there are important design and implementation issues that need to be attended to, particularly in settings in which pilots have not traditionally used.

Kroeger, A., & Hernandez, J. M. (2003). Health services analysis as a tool for evidence-based policy decisions: the case of the Ministry of Health and Social Security in Mexico. *Trop Med Int Health*, 8(12), 1157-1164.

Country/Region: Mexico

Study Design: B (Cross-section with control). Mixed methods, including quantitative and qualitative components: cross-sectional survey, in-depth interviews, focus groups, document analysis.

Study Population: Public health care providers for poor populations in Mexico, including assessments of users of health services, health workers, and community members.

Measures:

Availability of resources, program coverage and use of services was assessed by: physicians per 10,000 habitants; nurses per 10,000 habitants; hospital beds per 10,000 habitants; immunization coverage; family planning coverage; intensity of use of antenatal care; in-service supply of drugs. User satisfaction was assessed by proportion of agreement to the following statements: staff is able to solve health problems; staff respects local traditions; staff speaks indigenous language; perception that health service is cheap; friendliness of staff; good quality of the health services. Satisfaction of health services workforce was assessed by proportion of agreement to the following statements: salary is adequate; frequent reception of bonus pay; good support from line managers; during supervision receive advice and training; equipment is generally adequate; highly satisfied with conditions of health units. Also, longitudinal analysis of the performance of the two providers of health care to poor populations is done with trends of annual incidence rate of diarrheal diseases, acute respiratory infections, pulmonary tuberculosis, and typhoid fever, by provider.

Definition/Function:

The study used a comprehensive approach to health services analysis to compare the performance of two public organizations in Mexico that provide health care to the poor: the Ministry of Health (MoH) and the Social Security (SS). The study uses quantitative and qualitative collection methods data to identify strengths and weakness of the two providers as well as to analyze their performance over time, in order to provide evidence to inform future decision of managers and policymakers.

Impact/Result:

In terms of the population served, the study concluded that the characteristics of poverty were similar for users of both agencies. Furthermore, the authors concluded that “the availability of resources was better in the MoH system; SS care was better concerning process indicators (family planning, antenatal care; in-service delivery of drugs, staff productivity, user satisfaction and staff motivation), efficiency and effectiveness (reduction of morbidity and mortality)” (1157). The study suggests that higher performance of the SS system may be due to “strong supervision, regular communication, joint data analysis and annual population surveys” (1157).

Lessons Learned:

Based on their findings, the authors emphasize that because service organization matters for efficiency and effectiveness, organizational aspects of the interventions should be attended to during the health reform process.

Maioni, A. (2003, November 4, 2003). *The Politics of Primary Care*. Paper presented at the Conference on the Implementation of Primary Care Reform: Canadian and International Perspectives, Queen's University.

Country/Region: Canada

Study Design: E (Observation). Concept paper / case study.

Study Population: Canadian health care system.

Measures:

Specific measures of health care are not discussed in the paper.

Definition/Function:

According to the author, primary health care was neglected in Canada for a number of years until a series of developments and concerns (including cost control mechanisms, access to care concerns, provider supply concerns, policy learning, and critical mass of evidence) brought primary care to the center of the policy agenda.

The author further suggests that although implementation is a critical piece in the policy process, studies of successful implementation processes have mainly attributed it to the existence of strong "political will". However, "political will" can serve as catch-all term that does not explain the mechanisms through which political change actually take place. Therefore, the study suggests some elements must be examined carefully in the study of implementation of health reform, including: representation of interests, demand for or resistance to change, forms of participation, federalism issues, partisan politics, public opinion, and bureaucratic politics.

Impact/Result:

The study does not offer evidence of the impact of health reform, but it calls for a more in-depth approach to the study of implementation of primary care health reform.

Lessons Learned:

Implementation is a crucial part of health care reform, but little is known about the factors that influence this stage of reform beyond the broad call for political commitment. Therefore, more attention should be paid to the implications of the politics of health care reform.

Oliveira-Cruz, V., Hanson, K., & Mills, A. (2003). Approaches to overcoming constraints to effective health service delivery: a review of the evidence. *Journal of International Development*, 15, 41-65.

Country/Region: Low- and middle- income countries.

Study Design: C (Systematic literature review). Literature review.

Study Population: Empirical studies on efforts to overcome constraints to effective health service delivery.

Measures:

Main outcomes of interest: “efficient use of inputs, increased provider knowledge, client perception of health service quality (intermediate outcomes); health services utilization, coverage increase, reduction in morbidity or mortality (final outcomes)” (43).

Definition/Function:

The review focuses on “evidence on the success of efforts to overcome constraints related to the delivery of health services at the close-to-client level especially in areas relevant to diseases and health problems of highest priority” (42). The main interventions analyzed are “management system strengthening, community involvement, improvements in training and supervision, introduction of quality assurance system” (43).

Impact/Result:

The authors conclude that there *community participation* has a positive impact on performance: “*community participation* through active involvement of leaders and members, including community health worker programmes, seems to be an effective tool for improving performance. Effective community participation appears to arise from the combination of ‘push’ by the community, and ‘pull’ from the existence of a space or opportunity for them to participate” (53-54). There is some evidence for the impact of *quality assurance methods* on performance. The evidence on the impact of *management strengthening interventions* is not very sound from the methodological point of view, but there seems to be indications that more autonomy for managers at the local level is needed. Some interventions based on *training and supervision* have yielded improvements in performance and quality of services, but it should be a part of a comprehensive human resource policy rather than a way to top up low salaries. Interventions based on an *integrated approach to drug policy* seem to have worked well.

In addition to the evidence of impacts listed above, the authors present a categorization of facilitating factors for health interventions for the different levels. At the community level: community participation. At the health services delivery level: staff motivation, team work, frequent communication, supervision and feedback mechanism. At the health sector policy and strategic management level: liaison units or groups of facilitators; communication; technical and managerial support; participative approaches involving community, managers and staff. At the public policy level: decentralization and autonomy at the regional and local levels; intersectorial collaboration. At the environmental level: political and macroeconomic stability; commitment, leadership and ownership.

Tuohy, C. H. (2003, November 4, 2003). *The Political Economy of Health Care Reform: A Cross-national Perspective*. Paper presented at the Conference on the Implementation of Primary Care Reform: Canadian and International Perspectives, Queen's University.

Country/Region: Australia, Canada, Netherlands, New Zealand, United Kingdom and United States

Study Design: E (Observation). Comparative case study.

Study Population: Health care reform in OECD countries.

Measures:

Specific measures of health care are not discussed in the paper.

Definition/Function:

The author offers a typology of three models of health care reform approaches: (1) “‘Big-bang’ reform: attempts to make major, comprehensive changes to the roles of key actors in the system within a short time frame”; (2) “‘Blueprint’ reform: enactment of a comprehensive framework for change to be implemented in phases”; and (3) “‘Incremental reform: no sweeping re-design, but marginal adjustments to the roles of some key actors.’”

Examples of the big bang reform are the United Kingdom, New Zealand, and the United States at the federal level; examples of blueprint reform are Netherlands, United States at the state level; and examples of incremental reform are Australia and Canada.

Impact/Result:

The author suggests that regardless of the particular strategy or model that is chosen for health care reform, the most likely outcome will be a change in a sub-sector of the health system. Given this context, the author further argues that the most promising sub-sector for reform focus is primary care, citing the possibilities of leverage on the system and potential for alliances with key providers.

Lessons Learned:

It is difficult to achieve the overhauling of an entire healthcare system at once. Even comprehensive attempts to reform the healthcare system are likely to result in partial change. Therefore, a more useful attempt may be to elect priority sub-sectors for change, and primary health care would be a likely candidate.

Figueras, J., Musgrove, P., Carrin, G., & Duran, A. (2002). [Challenges to Latin-American health systems: what can be learned from the European experience?](Article in Spanish). *Gac Sanit*, 16(1), 5-17.

Country/Region: Latin America and Europe

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: National health systems in Latin America and Europe.

Measures:

The article does not present specific measures.

Definition/Function:

The article argues that the European experience may provide important lessons for the challenges that Latin American countries face with respect to their national health systems. The authors identify five main challenges for Latin American health systems: a) to extend financial protection, both in prepayment and solidarity formats; b) to guarantee that such financial protection is stable over time; c) to adequately balance resources with the capacity to finance services; d) to increase both technical and allocative efficiency in the provision of services; and e) to improve the stewardship function in public and private sectors.

Impact/Result:

The authors identify three key areas that constituted the backbone of reform in of the European health systems and that could be used as principles to guide reform efforts in Latin America. The first principle is to combine solidarity with financial sustainability, and two points should be stressed within this goal. First, models of free competition among private insurers have been very difficult to implement and monitor even in the developed countries of Europe. Therefore, efficiency gains from competition can be offset by high transaction costs thus reducing equity. Second, the best way to stabilize the health system is to improve its fiscal aspects. In Europe, both the Beveridge models (UK and Scandinavian countries) and the Bismarck models (Austria, Germany, Belgium, France, Netherlands and Switzerland) had to find ways to pool fiscal resources so that cross-subsidies are possible to help the poorest.

The second principle is to gradually introduce market incentives while maintaining a clear role of stewardship by the State. Both in the Beveridge and the Bismarck models in Europe, the implementation of professional and responsible public service was key to the smooth functioning of the system. The separation of insurance from ministerial functions should be compatible with functional integration.

The third principle is to adopt innovations in the organization and production of services, with particular emphasis on: "evaluation of new technologies; quality control; clinical directives and protocols; management decentralization; functional integration among the different levels of provision; strengthening of primary care, and human resources strategies" (15-16).

Gauri, V., & Khaleghian, P. (2002). Immunization in Developing Countries: Its Political and Organizational Determinants. *World Development*, 30(12), 2109-2132.

Country/Region: Developing countries.

Study Design: A (Experiment, quasi experiment, or time series analysis). Cross-country panel data analysis, using secondary data.

Study Population: Health systems of low and middle income countries.

Measures:
Immunization coverage; introduction of new vaccines.

Definition/Function:
The study aims to investigate the impact of political and institutional factors on immunization rates in developing countries. The main political and institutional variables used in the regression models include: level of democracy and existence of State failure (both taken from a secondary database); as well as an institutional quality score (assessing bureaucratic quality, corruption, rule of law, property rights, and ethnic tensions). The motivation of the article is to understand the “political sources of social policy” (2109).

Impact/Result:
The authors offer four main findings from their investigation of the impact of institutional variables on immunization coverage: first, “the global policy environment significantly affected immunization coverage rates in countries at all income levels” (2120); second, “contact with donor agencies raised coverage rates for EPI vaccines, but slowed adoption for new vaccines” (2123); third, “democratic government lowered coverage rates, but this effect was not observed at low income levels” (2124); and finally, “the quality of a country’s institutions and its level of development influence immunization coverage rates, but several variables related to the demand for vaccines do not” (2126).

Lessons Learned:
The macro institutional characteristics of countries, as well as their level of contact with international organizations have important implications on health policy outcomes, such as immunization coverage.

Jha, P., Mills, A., Hanson, K., Kumaranayake, L., Conteh, L., Kurowski, C., et al. (2002). Improving the health of the global poor. *Science*, 295(5562), 2036-2039.

Country/Region: Low- and middle-income countries

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Population of low- and middle-income countries.

Measures:

The paper discusses the availability of healthcare for the population of the 83 poorest countries, and uses measures of risk of dying and avoidable mortality. Other measures used are related healthcare interventions focused on the following conditions: maternal mortality and perinatal conditions; childhood mortality; malaria; tuberculosis; tobacco-attributable diseases; HIV/AIDS and sexually-transmitted infections.

Definition/Function:

The authors argue that, in the poorest countries, a few health conditions are the causes of almost 90% of avoidable mortality at younger ages: "The primary causes of this avoidable mortality are maternal and perinatal mortality, vaccine-preventable diseases, acute respiratory infections and diarrhea, protein-energy and micronutrient malnutrition, malaria, tuberculosis, tobacco-attributable disease, and HIV/AIDS" (2036). Given that there are known effective interventions against these diseases, the authors propose a plan to reduce excess mortality and avoid millions of deaths in developing countries.

Impact/Result:

According to the paper, an amount between \$40 billion and \$52 billion would be sufficient to achieve coverage rates between 70 and 90 percent for interventions targeted at the main causes of avoidable mortality in developing countries by the year 2015 (maternal mortality and perinatal conditions; childhood mortality; malaria; tuberculosis; tobacco-attributable diseases; HIV/AIDS and sexually-transmitted infections). In order to put assure that the resources of such a plan are well spent, the authors recommend four actions: "(i) focused efforts to identify and systematically remove the key constraints that prevent health systems from increasing the coverage of good quality services; (ii) a massive effort with donor financial and technical support to increase the number of skilled health managers; (iii) a similar massive effort to put in place reliable surveillance systems to track trends in the health status of the poor, detect and control new epidemics and outbreaks, evaluate the success of control programs, and improve accountability for expenditures on health; and (iv) a major increase in research on interventions including vaccines, drugs, and behavior change, and on how best to deliver interventions to communities" (2039).

Lessons Learned:

A small number of conditions are responsible for the bulk of avoidable mortality. Therefore, with focused efforts on the main drivers of mortality it is possible to achieve effective results.

Petersen, I., & Swartz, L. (2002). Primary health care in the era of HIV/AIDS. Some implications for health systems reform. *Social Science & Medicine*, 55, 1005-1013.

Country/Region: South Africa

Study Design: E (Observation). Case study (qualitative).

Study Population: At risk population for HIV/AIDS in South Africa.

Measures:

No specific measures are offered in the article.

Definition/Function:

The authors argue that, by focusing on packages of priority interventions, the third generation of healthcare reforms has neglected the importance of the comprehensiveness of care approach: "the emphasis on 'packaged' priority programmes with measurable outcomes, which characterizes third generation reforms, needs to be accompanied by the reorientation of primary health care providers towards an empowering comprehensive approach to care" (1005).

Impact/Result:

While no specific impacts of comprehensiveness of care are offered, the authors use the case of the rapid spread of HIV/AIDS to illustrate the necessity to retain the comprehensive empowerment approach within the packages of priority interventions. According to the article, the spread HIV/AIDS epidemic in South Africa is "inextricably linked to social and psychosocial factors" (1011), which requires the use of an empowerment approach.

Lessons Learned:

The use of packages of priority interventions based on evidence of effectiveness does not eliminate the need for comprehensiveness of care and health promotion functions that are central to the original primary care message.

Mills, A., Bennett, S., & Russell, S. (Eds.). (2001). *The challenges of health sector reform: what must governments do?* New York: Palgrave.

Country/Region: Ghana, India, Sri Lanka, Thailand, and Zimbabwe.

Study Design: E (Observation). Comparative case study.

Study Population: Health systems in developing countries.

Measures:

No specific measures are offered.

Definition/Function:

The authors develop a number of arguments with regards to health sector reform in developing countries. First, where contracting out is introduced with inadequate capacity to monitor contracted services, it may result in high-cost, low-quality care. Second, where performance is poor and capacity is weak, the best approach is a gradual and strategically phased reform that includes development of skills to manage the transition process, guide the development of political and social support, and change administrative cultures. Third, “the international literature is remarkably thin in offering alternative models for health sector reform, with battle lines drawn between those espousing NPM [New Public Management] reforms and those supporting a traditional public sector, monopolistic approach.” (221). Fourth, reform efforts need to achieve greater ownership of reforms among health professionals and the general public. Fifth, an emphasis on basic systems such as information systems, management skills, and financial accountability, may be most appropriate for weak capacity countries, since these skills are necessary to improve the existing services as well as establish the basis upon which to build reform efforts. Finally, reforms should “build upon social solidarity, rather than undermine it” (223).

Impact/Result:

The authors argue that the main objectives of health reform, overcoming market failures in health services through increasing government accountability, enhancing responsibility to clients, and improving performance through incentives have often been impeded by government failure due to limited capacity of the state to implement reforms. From case studies of Ghana, India, Sri Lanka, Thailand, and Zimbabwe, the authors find that it is difficult to determine whether gains can be had by contracting out due to: poor cost accounting systems for establishing hospital autonomy, limited availability of financial data for monitoring user fees, limited data on public sector costs or performance. Moreover, absence of databases and client records for private sector providers impede proper regulation of service providers.

Lessons Learned:

Capacity building should include: developing skills to manage the process of health reform, ensuring basic capabilities for governance, addressing organizational culture, coping with external constraints, and phasing reforms in a strategic manner. The authors also recommend a critical analysis of the health reform agenda and its implementation.

Bossert, T. J. (2000). Methodological Guidelines for Enhancing the Political Feasibility of Health Reform in Latin America. *Publications of the Latin America and the Caribbean Regional Health Sector Reform Initiative*. PAHO/WHO.

Country/Region: Latin America

Study Design: F (Policy paper or non-systematic review). Methodological paper

Study Population: Health sector reform efforts in Latin America.

Measures:

The author does not specify types of measures to be used in the studies, since those will depend on the reform initiative being analyzed.

Definition/Function:

This paper offers a methodological framework for the investigation of empirically observable reform efforts. The author of the paper applied the methodology for the study of reforms that aimed to promote “new forms of sector financing involving the creation of private and social insurance schemes” (2), but the method could be applied to several other reform initiatives.

The main steps of the proposed methodology are: definition of a theoretical framework of analysis; selection of cases; selection of researchers; delimitation of the reform initiative under study; assessment of the institutional context; identification of and interviewing with major stakeholders; tracing of policy process; writing of the draft report; preliminary presentation of the results at a validating seminar.

Impact/Result:

While impacts of reforms are not discussed, the paper contains a list of several previous studies on reform initiatives in Latin America.

Homedes, N., Paz-Narvaez, A. C., Selva-Sutter, E., Solas, O., & Ugalde, A. (2000). Health Reform: Theory and Practice in El Salvador. In P. L. Sherlock (Ed.), *Healthcare reform and poverty in Latin America*. London: Institute of Latin American Studies.

Country/Region: El Salvador

Study Design: C (Systematic literature review). Literature review and a case study of El Salvador.

Study Population: Health systems in Latin American countries, particularly El Salvador.

Measures:

No specific measures are offered in the chapter.

Definition/Function:

The authors challenge a number of aspects of conventional wisdom about the components of health reform. First, decentralization can actually increase inequity since different administrative units have variable capacity in running health systems. In order for decentralization to work well, it may require more resources devoted to administration and capacity building than before decentralization. Second, community participation, although a component of most health reforms, does not always lead to more equitable health systems since communities are themselves often controlled by local elites who may be able to steer the participation process toward their own benefit. Third, privatization may increase inequality in many health systems. This is often because efforts fail to create true competition (especially in rural or marginalized areas), and the general lack of regulatory capacity and oversight means that it is often difficult to verify the quality of services delivered. Fourth, defining basic health packages often results in a "selective primary health care" approach that may limit the extent to which the complex health needs of the poor (who tend to be in poorer health) can adequately be addressed. Finally, the authors criticize the emphasis of health reform efforts on medical care, particularly specialist and hospital care at the expense of health promotion, environmental health, and poverty alleviation.

Impact/Result:

Evidence from selected studies in Brazil, Chile, Guatemala, and Nicaragua shows that privatization may result in net gains for wealthy patients with private insurance thus increasing the pro-rich subsidy inherent in many health systems.

Lessons Learned:

The authors suggest that successful health reform efforts must be: locally initiated, attentive to local historical processes and culture, cognizant of required conditions and enabling factors, and respond to the real health needs of the population. It should build on local health initiatives and must involve consultation among all stakeholders, represent the political interests of more than just the wealthy, and include a strategy for monitoring and taking action to address the reform's impacts on equity.

Londoño, J. L., & Frenk, J. (2000). Structured pluralism: towards a new model for health systems reform in Latin America. In P. L. Sherlock (Ed.), *Healthcare reform and poverty in Latin America*. London: Institute of Latin American Studies.

Country/Region: Latin America

Study Design: F (Policy paper or non-systematic review). Conceptual paper.

Study Population: Health systems in Latin American countries.

Measures:

No specific measures are offered in the chapter.

Definition/Function:

According to the chapter, Latin American countries face the burden of accumulated disadvantages and emerging concerns in both the populational and institutional components of their health system. The authors argue that the main problem with health systems in LAC is fragmentation. Populations are fragmented in terms of coverage by different components of the health system (or even through parallel systems). Health systems are also generally fragmented vertically, with differing levels of responsibility ranging from all aspects of finance and provision to little more than limited regulation of an atomized private model. The vast majority of Latin American countries are characterized by the segmented model, whereby different population groups are covered by different health systems (social security, MOH, and private sector). These conditions result in inefficiency and ineffectiveness and contribute to inequity.

Impact/Result:

While evidence of impacts or results of health reform are not discussed, the chapter offers a model for implementation. The authors propose a model of structured pluralism whereby health system functions are divided among actors based on institutional advantage. The Ministry of Health should provide the “modulation” function including system development (policy and strategy formulation, priority setting, intersectorial advocacy, capacity strengthening), coordination, financial design (development of payment and incentive systems), regulation (licensure, accreditation, rules, and legal instruments), and consumer protection. Financing should be managed by social security funds. Articulation (managing risk, payment, and provider contracts) would be the domain of a new type of organization called OHSA’s (organizations for health service articulation). Delivery would be realized by public and private sector providers contracted by the OHSA’s.

Lessons Learned:

The main guidelines for successful health reforms are: institutional strengthening; combining decentralization with changes in the configuration and operation of the institutions affected by decentralization processes; using global incentive mechanisms to induce more effective management; and searching for a new equilibrium among actors in the health system as a result of reforms.

Sherlock, P. L. (Ed.). (2000). *Healthcare reform and poverty in Latin America*. London: Institute of Latin American Studies.

Country/Region: Latin America

Study Design: E (Observation). Qualitative; descriptive case studies.

Study Population: Health systems in Latin American countries.

Measures:

No specific measures are discussed in the chapter.

Definition/Function:

Health systems in Latin American countries are highly segmented and biased towards hospital-based care. The wealthier countries in the region devote a higher percentage of their GDP to health, but much of this spending goes to hospitals and specialist providers. At the same time, there is great diversity in healthcare organization, finance, and delivery. Diversity is understandable given the wide range of health needs, demographic and epidemiologic transitions, and vast inequalities in wealth, education, and power among and within countries in the region.

Impact/Result:

Many countries in Latin America have adopted neo-liberal policies in terms of healthcare delivery and financing, others have retained the role of government financing and provision of essential services. Health sector reform strategies have almost always included decentralization. However, evidence is variable in terms of how these reforms have improved health systems across the board.

There is a wide range of new actors, increasing penetration of private insurance and private providers, including primary care, specialists, and hospitals, but there is often a lack of capacity in government to adequately regulate and monitor private sector services. Increased costs for pharmaceuticals have also been observed, partly due to international trade agreements, macroeconomic adjustment policies, and changes in internal markets.

With some exceptions, medical and health professional training in Latin America has become increasingly focused on training for surgery and specialty care, in spite of the increasing need for primary care practitioners. Geographic distribution of health professional is concentrated in urban areas, and even programs designed to encourage service in rural areas have been insufficient.

Lessons Learned:

In spite of the diversity of health needs in the region, more attention could be devoted to primary health care in the region. Furthermore, the impacts of health reforms across the region have been mixed.

Dugbatey, K. (1999). National health policies: sub-Saharan African case studies (1980-1990). *Soc Sci Med*, 49(2), 223-239.

Country/Region: Botswana, Cote d'Ivoire, Ghana, Zimbabwe

Study Design: E (Observation). Policy analysis and review of secondary data.

Study Population: National policies, infant and under-5 mortality, life expectancy.

Primary Care Measures: Policies pertaining to: health education, food and nutrition, water and sanitation, maternal and child health, immunization, prevention of endemic and common diseases, essential drugs.

Definition/Function: The article used the Alma Ata definition of primary health care, containing the following dimensions: health education, food supply and nutrition, safe water and sanitation, maternal and child health, immunization, prevention and control of locally endemic diseases, treatment of common diseases, and provision of drugs.

Impact/Result: The study showed that Botswana and Zimbabwe performed better than Cote d'Ivoire and Ghana in terms of health outcomes. This relationship did not appear to be related to income only, as richer countries (Cote d'Ivoire) scored worse than Zimbabwe and Ghana. The author concludes that "policies formulated and implemented in accordance with key PHC principles could account for improvements in national health status".

2. Managing Change

Ambegaokar, M., & Lush, L. (2004). Family planning and sexual health organizations: management lessons for health system reform. *Health Policy Plan*, 19(Suppl 1), I22-I30.

Country/Region: Not specific to a country or region.

Study Design: F (Policy paper or non-systematic review). Conceptual / policy paper.

Study Population: Family planning and sexual health (FPSH) organizations.

Measures:

The paper does not offer specific measures.

Definition/Function:

The authors extract lessons from the organization of the FPSH sector since the 1920s that could be useful for the health sector reform in general. The evolution of the family planning and sexual health sector has been characterized by three stages: first, the NGO movement with the involvement of independent not-for-profit providers; second, vertical government programs of family planning and population control; and third, social marketing programs focused on contraceptives. The authors suggest that the development of the FPSH sector can provide positive and negative lessons for health sector reform in the following topics: "autonomous management, use of incentives to providers and acceptors, balancing of centralization against decentralization, and employing private sector marketing and distribution techniques for delivering health services" (i22). Therefore, health sector reform advocates can benefit from the cooperation of FPSH advocates.

Impact/Result:

The lessons indicated in the study are presented in the following list (each positive lesson is followed by a negative one): a) "Mission driven NGOs may better provide specialized health services or reach niche groups ... but contracting an NGO simply because it is separate from government is not equivalent to supporting the independently conceived mission of a philanthropic NGO"; b) "NGOs may have an advantage where government is not active ... but NGO services are not necessarily better managed than government ones and may require management training & support."; c) Local (decentralized) managers need practical objectives and indicators for monitoring activities at their level ... but national-level (centralized) indicators provide useful measures for government and donors of the impact of the investments."; d) "Incentive payments can successfully influence both provider and client behavior ... but incentive systems can be coercive and have unintended results, such as the abuse of human rights."; e) "Centralized, vertical programmes may inhibit integrated service delivery to the client ... but vertical programmes with strong political support can be dramatically successful at achieving results."; f) "The business techniques of advertising and marketing can improve awareness and social/political acceptability of health services ... but selling a product is not the same as providing a full service that encompasses the product."; g) The private sector can bear part of the costs of a public health service ... but the private sector must make a profit or it will withdraw."; and h) "Subsidies can leverage private sector investment in public health care ... but subsidized services may draw fully private clients away from the private sector into the subsidized one" (i28).

Bradley, E. H., Webster, T. R., Baker, D., Schlesinger, M., Inouye, S. K., Barth, M. C., et al. (2004). Translating research into practice: speeding the adoption of innovative health care programs. *Issue Brief (Commonwealth Fund)* (724), 1-12.

Country/Region: United States

Study Design: E (Observation). Case studies (descriptive).

Study Population: Clinical programs.

Measures:

Different measures of care were used in the four cases under study, and they include health outcome variables (such as rates of functional and cognitive decline among hospitalized older patients, drug-related morbidity and mortality in nursing homes) as well as managerial variables (such as rates of staff turnover, organizational performance, and user satisfaction with services).

Definition/Function:

The study offers a conceptual framework for the determinants of the adoption of innovations from research into practice. This framework includes characteristics of: the innovation, the dissemination infrastructure, the external environment, and the adopting organization. The interaction of these four elements determines the process of diffusion.

Impact/Result:

The authors argue that the successful diffusion of innovation into practice settings depends on the following: “senior management, clinical leadership, and credible data”; an “infrastructure dedicated to translation the innovation from a research setting into a practice setting”; the level of resources available to the organization; and “the degree to which people believe that the innovation responds to immediate and significant pressures in their environment.” (9)

Lessons Learned:

The adoption of innovative health care programs is more likely to be successful if an infrastructure to support the diffusion process is in place. Moreover, innovations shouldn't be implemented *per se*; instead there should be an assessment of whether those innovations actually meet the needs and the demands of the environment under consideration.

Disney, H., Horn, K., Hrobon, P., Hjertqvist, J., Kilmarnock, A., Mihm, A., et al. (2004). *Impatient for Change. European attitudes to healthcare reform*. London: The Stockholm Network.

Country/Region: Europe (Britain, Czech Republic, France, Germany, Italy, Netherlands, Spain, and Sweden)

Study Design: D (Cross-section without control). Representative cross-sectional survey, descriptive study.

Study Population: Citizens of European countries

Measures:

The study aims to measure the views and expectations of citizens of European countries about their respective healthcare systems. The main measures used in the surveys were: delivery deficit, measured as perceptions about waiting times; solidarity gap, measured as perceptions about the importance of equality of access *versus* quality of personal care; inferiority complex, measured as citizens' opinion that other European health systems are better than their own; pessimism ranking, measured as the impression that healthcare will get worse in their countries in the next 10 years; and reform index, measured as the citizens' perception that healthcare reform in their countries is urgent or desirable.

Definition/Function:

The purpose of the study is to assess the attitudes of citizens of European countries towards their respective national health systems, as well as their perceived need for reform. The authors broadly categorize European health systems into two main models: tax-funded government monopolies, or 'Beveridgean' systems; and social insurance or 'Bismarckian' systems. Ireland, the United Kingdom, Sweden, Spain and Italy are examples of the former, while Germany and the Netherlands are examples of the latter. Regardless of the specificities of each country, the authors suggest that the trends of sharp raise in patient expectations, increased medical costs, and the ageing of Europe's population all contribute to make healthcare reform a urgent necessity.

Impact/Result:

The results indicate that even in the best healthcare systems, there is a tension between equity, efficiency, and satisfaction. Despite the demand for higher quality care, Europeans still place a high value on solidarity and equity. According to survey results, most of the citizens prefer to be quickly diagnosed and treated than to have a choice of providers, since only 25% believe that choice will matter in terms of quality of care. Most people tend to trust the physicians or nurses assessment of the quality of service more than their own, and much more than that of politicians.

Lessons Learned:

While choice may be an important element of a healthcare system, citizens tend to prioritize quick access to care. Given the trust that people put onto physicians and nurses assessment of quality of care, it is important to: a) increase interaction between providers and communities; b) attend to provider needs and their calls for improvement.

Petticrew, M., Whitehead, M., Macintyre, S. J., Graham, H., & Egan, M. (2004). Evidence for public health policy on inequalities: 1: the reality according to policymakers. *J Epidemiol Community Health*, 58(10), 811-816.

Whitehead, M., Petticrew, M., Graham, H., Macintyre, S. J., Bambra, C., & Egan, M. (2004). Evidence for public health policy on inequalities: 2: assembling the evidence jigsaw. *J Epidemiol Community Health*, 58(10), 817-821.

Country/Region: United Kingdom.

Study Design: E (Observation). Qualitative based on discussions with two panels of experts (senior policy advisors for the first paper, and senior research leaders for the second paper).

Study Population: Studies that present evidence for policy on health inequalities.

Measures:

The papers do not present specific measures, since it is based on perceptions of policy advisors and research leaders.

Definition/Function:

The focus of the papers is to investigate what kinds of research has greater relevance for policy, and with that purpose the authors conducted two separate workshops with senior policy advisors and with senior research leaders. Based on the discussions that took place during the workshops, the authors argue that researchers share the concerns of policymakers regarding the type and nature of available evidence and that policymakers would like researchers to help them with the task of making sense out of the evidence-base.

Impact/Result:

According to the panel of research leaders, the types of evidence that have an impact on health inequality policy are: 1) "observational studies that identified a problem"; 2) "modest, but politically timely (...) narrative accounts of the impacts of policies from the household perspective"; 3) "controlled evaluations of interventions"; 4) "natural policy experiments"; and 5) "historical evidence with a long shelf life" (818).

Lessons Learned:

Researchers, policymakers, and funders need to work together to promote an evaluation culture, develop more appropriate training for researchers, and maintain investments in longitudinal research, such as large scale cohort studies. This implies that improving the evidence base requires policymaker commitment to the evaluation of policies which entails budgeting for project evaluation from the beginning of policy enactment.

Shiffman, J., Stanton, C., & Salazar, A. P. (2004). The emergence of political priority for safe motherhood in Honduras. *Health Policy Plan*, 19(6), 380-390.

Country/Region: Honduras

Study Design: E (Observation). Case study, process-tracing (qualitative).

Study Population: Safe motherhood policy in Honduras.

Measures:

The main process indicators of safe motherhood used in the study were: percentage of births in last 5 years to women 15-44 with at least one antenatal care visits with medically trained personnel; percentage with an institutional delivery; and caesarian section rate.

Definition/Function:

The article focuses on the emergence of safe motherhood as a national priority in Honduras during the 1990's, and provides a detailed account of the design and implantation of policies to reduce maternal deaths in the country. The authors rely on three branches of political science literature to explain the safe motherhood developments that took place in the country: constructivist international relations theory, policy transfer and agenda-setting.

Impact/Result:

According to the study, the emergence of safe motherhood as a political priority in Honduras was a key explanatory factor for the rapid decline of maternal mortality rates in the country. "Between 1990 and 1997 the country's maternal mortality ratio--the number of deaths due to complications during pregnancy, childbirth and the postpartum period per 100,000 live births--declined 40% from 182 to 108" (380).

The study also quotes secondary data on the development of process indicators between 1990 and 1998: the percentage of birth with at least one antenatal care visit with a medically trained professional increased from 72% to 85%, institutional delivery increased from 45% to 61%, and caesarian section rates increased from approximately 3% to 8%.

Lessons Learned:

According to the authors, the "unusually cooperative relationship that developed between international donors and national health officials" resulted in "effective transfer of policy and institutionalization of the cause within the domestic political system" (380).

Gonzalez, A., & Munar, W. (2003). *The Political Economy of Social Sector Reforms*. Washington, DC: Interamerican Development Bank.

Country/Region: Latin America, with an example from the Dominican Republic.

Study Design: E (Observation). Conceptual/policy paper, with a brief case study.

Study Population: Social policies in Latin American countries.

Measures:

Measures of health care or social policies are not discussed in the paper.

Definition/Function:

The authors suggest that there is an “imbalance between the technical assessment on which [Interamerican Development] Bank operations are based, and that of the country’s institutional and political elements that may affect the project’s viability” (6). Therefore, they aim to emphasize the political aspects of social sector reform and argue that IADB operations would be more effective if they included a political analysis component, as well as room for adjustment in order to ensure the viability of reforms.

Impact/Result:

While the document does not include specific impact studies, the authors suggest that a policy toolkit is being developed to help the design and execution of future projects. The purpose of this toolkit will be to support “analysis for strategic design and implementation geared at increasing the viability of the reform.” (15)

Lessons Learned:

In addition to technical aspects of social programs, institutional and political aspects of recipient countries are very important determinants of the success of social programs supported by the Interamerican Development Bank. However, assessment of institutional and political environments has been neglected so far.

Homedes, N. (2001). Managing externally financed projects: the Integrated Primary Health Care Project in Bolivia. *Health Policy Plan*, 16(4), 386-394.

Country/Region: Bolivia

Study Design: E (Observation). Descriptive case study.

Study Population: Primary Health Care project, World Bank.

Primary Care Measures: Primary Health Care project management.

Definition/Function: The article focuses on the Integrated Primary Health Care Project of Bolivia, that has the following goals: “(a) increase the coverage of basic health services and, in particular, maternal and child health; (b) improve the effectiveness of health care delivery in public institutions; and (c) strengthen Bolivia’s central policy-making capability and coordination of investments in the health sector.” (386)

Impact/Result: Factors contributing to successful project implementation include: good leadership, clear goals and indicators of success, flexibility, organizational structure, regular communications, building relationships, greater autonomy and decision making for lower-level units. Negative factors include: political instability (national as well as external funder), weak civil service, poor management, inefficient legal and judicial system (corruption), conflict of interests between lender (World Bank) and country.

Sabatier, P. (1995). An Advocacy Coalition Framework for Policy Change and the Role of Policy-Oriented Learning Therein. In D. C. McCool (Ed.), *Public Policy, Theories, Models, and Concepts. An Anthology*. (pp. 339-379). Englewood Cliffs, New Jersey: Prentice Hall.

Country/Region: The framework should be applicable to most industrialized countries.

Study Design: F (Policy paper or non-systematic review). Conceptual / theoretical paper.

Study Population: Policy change events.

Measures:

Specific measures are not discussed in the article.

Definition/Function:

According to the article, “much of the policy debate can be understood as disputes over the validity of those causal theories and the adequacy of the data bases involving critical state variables” (368). The author offers a framework for the analysis of policy change that contains three main elements. First, the unit of analysis of policy change should be policy subsystems, which have advocacy coalitions as the key units of their internal structure, and should be understood in terms of decades, and not years. A policy subsystem includes not only the institutions, but also several stakeholders related in different ways (for and against particular options) to the issue under analysis. Second, policy analysis must attempt to understand the elites’ beliefs about causal relationships and states of affairs. Third, policy analysis must focus on ‘policy-oriented learning’. This is a process through which the inability of political actors to fully achieve goals in a world of limited resources gives them “incentives to learn more about the magnitude of salient problems, the factors affecting them, and the consequences of policy alternatives” (369).

Impact/Result:

The author offers examples of how changes in perception on air quality resulted in major policy changes on air pollution in the United States. From the initial perception that the air was dirty, members of advocacy coalitions later perceived air quality as a public health issue. This change coincided with increased budgets for pollution control as well as new environmental regulations.

Lessons Learned:

Policy change is a long-term process and that includes, in addition to government agencies, officials, and interest groups, several other actors such as the journalists, researchers, and other members of civil society. Changes in the perception about causal relationships are an important part of policy change. Therefore, the implementation of new models requires: understanding more about alternative policy approaches; demonstrating the alternative policy approaches; and persuading that these alternative approaches will lead to the expected outcomes.

3. Primary care-led systems

Atun, R. (2004). *What are the advantages and disadvantages of restructuring a health care system to be more focused on primary care services?* Copenhagen, Denmark: WHO Regional Office for Europe.

Country/Region: All countries.

Study Design: C (Systematic literature review). Literature review.

Study Population: National health systems.

Measures:

The literature review included studies that used measures on several different concepts associated with national systems, such as population health and aggregate health expenditure, equity and access, quality and efficiency of care, cost effectiveness, and patient satisfaction. Some of the measures cited included: mortality and premature mortality rates; mortality rates associated with cancer, cardiovascular and respiratory diseases; neonatal mortality; life expectancy; total health costs; referral rates; and prescription levels.

Definition/Function:

Several different definitions of primary care were discussed in the review. According to the author, the multiplicity of definitions of primary care makes systematic comparisons on this subject a challenging task. In the review, the concept of primary care is defined within the broader framework of the Alma Ata declaration, but many different approaches are also emphasized. In this perspective, primary care is defined: as a level of care, distinguishing primary from secondary care; as a key process, in terms of its gate-keeping role of frontline of the health system; in terms of content, which includes the interventions listed in the Alma Ata declaration; and in terms of team membership, which includes medical, paramedical, administrative, therapy and social personnel.

Impact/Result:

The review concludes that “the available evidence demonstrates some advantages for health systems that rely more on primary health care 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, the expansion of primary care services may sometimes lead to higher overall costs, due to the existence of previously unmet needs.

Lessons Learned:

Despite the difficulties of conducting cross-countries comparisons, there is some empirical evidence that expanding primary care services lead to improved outcomes.

Mills, A., Palmer, N., Gilson, L., McIntyre, D., Schneider, H., Sinanovic, E., et al. (2004). The performance of different models of primary care provision in Southern Africa. *Soc Sci Med*, 59(5), 931-943.

Country/Region: South Africa

Study Design: D (Cross-section without control). Comparative case study (22 primary care providers), using qualitative data and descriptive statistics.

Study Population: Public and private primary care providers in South Africa.

Measures:

Service and user characteristics were measured using: description of setting, clients, and service providers; mean patient workload; % users who completed primary education; users' household income; and utilization by chronic care, curative care, and maternal and child care. Costs to providers were measured using: input shares represented by clinical staff, medical and surgical supplies, recurrent costs, and capital costs; unit costs per visit represented by clinical staff, medical and surgical supplies, recurrent cost, capital cost, total cost visit. Technical quality of care was measured using: total consultation time; structural quality scores (infrastructure, access, patient environment, drugs); and appropriate treatment for sexually transmitted infections, diabetes, and hypertension.

Definition/Function:

The authors suggest that despite the growing efforts to implement public health systems based on primary care in developing countries, users still tend to rely on a variety of providers, included public and private ones. This observation has spawned discussions about the use of contractual approaches to the provision of primary care. Therefore, the authors argue that evaluations should be conducted on the impact of models of provision of primary care on performance of health systems. Six models of primary care provision are identified in the study: individual general practitioner contracts and company contracts (both contracted by the public sector); independent practice associations and clinic chains; (pure private practice models); and public integrated models.

Impact/Result:

The study concludes that "contextual features strongly influence provider performance, and that a crude public/private comparison is not helpful" (931). Furthermore, when contracting mechanisms are used, the design of contracts is very likely to influence performance.

Lessons Learned:

One important lesson suggested by the study is that "there is a need before contracting out service provision to consider how the performance of private providers might change when the context within which they are working changes with the introduction of a contract" (931).

Luck, J., & Peabody, J. W. (2002). When do developing countries adopt managed care policies and technologies? Part II: Infrastructure, techniques, and reform strategies. *Am J Manag Care*, 8(12), 1093-1103.

Country/Region: Developing countries.

Study Design: E (Observation). Qualitative study (description and recommendations).

Study Population: Health care reform experiences in developing countries.

Measures:

One set of qualitative measures used in the used refers to the types of regulatory action associated with each one of the following covered benefits: general provisions, primary care services, short-term inpatient care, long-term inpatient care, high-cost treatment and procedures, and treatment abroad. Another measured used is markups of prices over cost for selected service not covered by the national health insurance system.

Definition/Function:

The authors argue that “successful managed care relationships among payers, providers, and patients rely on several essential infrastructure elements: enabling legislation; regulatory mechanisms to administratively correct health and insurance market failures; enforceable contracts; and formal groups or associations of providers” (1093). According to the article, these are necessary pre-requisites for the use of managed care techniques, such as payment strategies, demand-side techniques, and utilization management.

Impact/Result:

The article does not offer detailed results of healthcare reform, but it claims that “governments in many developing countries can take deliberate steps to accelerate the evolution of certain macroeconomic preconditions – human capital and information systems – and essential infrastructure elements necessary to support managed care techniques” (1093). Furthermore, the authors argue that managed care techniques can be used as a means to promote primary care.

Lessons Learned:

The use of managed care techniques could be explored as a tool for the advancement of primary health care, but this step would require that a certain set of macroeconomic conditions and certain infrastructure elements are previously put in place.

Mullan, F., & Epstein, L. (2002). Community-oriented primary care: new relevance in a changing world. *Am J Public Health, 92*(11), 1748-1755.

Country/Region: All countries.

Study Design: F (Policy paper or non-systematic review). Conceptual paper.

Study Population: Health care systems in general, and primary health care systems in particular.

Measures:

Specific measures are not offered in the article.

Definition/Function:

The authors define Community-Oriented Primary Care (COPC) as “a continuous process by which primary care is provided to a defined community on the basis of its assessed health needs through the planned integration of public health practice with the delivery of primary care services” (1750). According to the paper, one important aspect of COPC is a technique called “community diagnosis” and that comprises 6 elements: community definition, community characterization, prioritization, detailed assessment of the selected health problem, intervention, and evaluation.

The authors suggest that the main obstacles for the implementation of COPC are: the requirements in terms of time, effort and budget that are necessary to engage communities; the additional work that is required whenever new health needs are identified; the lack of knowledge about efficient methodologies for the adoption of COPC; the lack of conceptual clarity about COPC. Despite the existence of these obstacles, the authors also argue that the following recent development have facilitated the practice of COPC and made it even more relevant: “the advent of increasingly accessible electronic information technology, the quality and outcomes movement in health care in general, and the growing recognition of the importance of the public health structure of all nations” (1752).

Impact/Result:

While no specific results are discussed in the article, the authors see that COPC could have important impact/results of the following areas: “reduction of gap in health status between and within countries”; “more explicit fiscal management of health care”; “growing incursion of HIV/AIDS”; and the “global family medicine” (1753-4). The authors also recommend that rather than being viewed as a “stand-alone” discipline, COPC should be viewed as an integrative framework for health systems and for medical training.

Lessons Learned:

Despite the many obstacles, recent developments have renewed the importance of primary health care centered on community involvement, and COPC could be considered as a framework for integrated health systems.

Bedregal, P., & Ferlie, E. (2001). Evidence based primary care? A multi-tier, multiple stakeholder perspective from Chile. *Int J Health Plann Manage*, 16(1), 47-60.

Country/Region: Chile

Study Design: E (Observation). Observational study (qualitative).

Study Population: Stakeholders from the public health sector in Chile.

Measures:

The qualitative study assessed the perceptions of the stakeholders about the following topics: what counts as evidence; definition of an effective intervention; mechanisms to discuss changes in the practices; perceptions of power to shape system level change; experiences of an opinions about evidence-based medicine.

Definition/Function:

The authors use Sackett et al's definition of primary care: "conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients" (48).

The study focuses on perceptions about evidence-based medicine and health reform in Chile, with emphasis on primary health care. This is motivated by the view that evidence-based medicine is one of the main goals of health sector restructuring in Chile: "using evidence-based decision-making to reduce variations of practice, contain costs and increase the effectiveness of clinical practice" (47).

Impact/Result:

The authors concluded that "concepts of evidence and effectiveness are different according to the role of each stakeholder in the health system. Most innovations proposed by government are related to management and stakeholders considered them as not being evidence-based. Informal mechanisms of decision-making predominated over the formal. Political issues are more important than formal evidence. All stakeholders felt they had power to define policy criteria but not to implement them. (...) Most stakeholders indicated the need for human resources with appropriate knowledge and personal skills in order to implement these changes." (47).

Lessons Learned:

The authors suggest that one of the most important deficiencies in the primary health care system in Chile is lack of leadership.

Bos, E., & Batson, A. (2000). *Using Immunization Coverage Rates for Monitoring Health Sector Performance. Measurement and Interpretation Issues*. Washington, DC: World Bank.

Country/Region: Low- and middle-income countries.

Study Design: F (Policy paper or non-systematic review). Conceptual paper / policy piece.

Study Population: Health systems in developing countries.

Measures:

Coverage rates under 1 year old for the following vaccines: BCG (*bacillus camille guerin*); OPV (oral polio vaccine); DPT (diphtheria, pertussis, and tetanus); measles; yellow fever; hepatitis B; Hib; and TT (tetanus toxoid).

Definition/Function:

The authors argue that “immunization coverage data can serve as an indicator of a health system’s capacity to deliver essential services to the most vulnerable members of a population” (5). According to the paper, the following characteristics of immunization coverage make a good proxy for health system performance: it is a well-documented approach to reduce child mortality and therefore it is a public health priority; it should be administered during the child’s first year of life, which makes it a sensitive indicator and suitable for monitoring over time; it is precise, objective, and there are internationally accepted target rates for vaccination, which allows for comparisons; and it can be used for evaluations at the sub-national level, if detailed coverage rates are available. The authors also point out, however, that sometimes immunization coverage data are not reliable or precise, and interpretations should be made carefully.

Impact/Result:

In terms of problems with interpretation of immunization data, the authors suggest that program statistics are subject to large potential errors which overestimate coverage. Survey data can be used to validate program data, but large confidence intervals make the comparison across time or across regions less precise. Therefore, the paper suggests that a combination of program statistics and periodic surveys should be used to evaluate health systems.

Lessons Learned:

Immunization coverage data can be a useful and cost-effective proxy for the evaluation and monitoring of health systems, both in longitudinal and cross-sectional dimensions. However, the interpretation of data should be made carefully, given the potential for data problems.

Johnstone, P., & McConnan, I. (1995). Primary health care led NHS: learning from developing countries. *BMJ*, 311(7010), 891-892.

Country/Region: Developing countries and Great Britain.

Study Design: F (Policy paper or non-systematic review). Editorial piece.

Study Population: National health systems.

Measures:

Few specific measures are discussed in the article, and they are used as examples for strengthening specific arguments. The measures include mortality rates among the under 5, and percentage of public spending allocated to primary care.

Definition/Function:

The editorial suggests that the principles of primary health care laid out in Alma Ata that are put into practice in many developing countries could be applied to more developed countries, such as Great Britain. The authors argue that many developing countries established primary care led health systems because they could not afford to emulate the medical model, and their strategy led to many cases of success. Meanwhile, the Western countries rejected the primary health care approach due to vested interests in the medical model, as well as fears of being associated with socialism. However, as health care costs increased dramatically in the 1990s, a renewed interest in primary care took place in Britain, and many lessons from developing countries could be applied.

Impact/Result:

The authors cite the reduction of child mortality under 5 in China from 175 deaths per 100,000 live births in the 1960s to less than 49 deaths per 100,00 in the 1990s. China, Cuba, and Tanzania are used as examples of countries that adopted “primary health care and the concepts of community participation, devolved decision making, and equity” (891).

Lessons Learned:

Experiences in developing countries may influence the policy agenda for domestic health in the developed countries. Furthermore, the principles of primary health care are also applicable to developed countries.

4. Financing and Policy

Ekman, B. (2004). Community-based health insurance in low-income countries: a systematic review of the evidence. *Health Policy Plan*, 19(5), 249-270.

Country/Region: Low-income countries.

Study Design: C (Systematic literature review). Literature review.

Study Population: Community-based health insurance in low-income countries.

Measures:

The two main characteristics of community-based health insured discussed in the review are resource mobilization and financial protection. In terms of resource mobilization, the author reviewed the studies searching for measures of: cost-recovery ratio as a direct effect of resource mobilization; and efficiency impact on care, quality impact on care, and moral hazard as indirect effects. In terms of financial protection, the author reviewed the literature searching for measures of: level of out-of-pocket expenditures spending as a direct effect of financial protection; and access to care as an indirect effect.

Definition/Function:

The review surveyed the health literature searching for empirical studies on community-based health insurance. In particular, the main research question was “the extent to which voluntary, not-for-profit [community-based health insurance] (1) mobilizes additional resources for health care in the operating area, and (2) provides financial protection for the target population” (249-50). The findings of each empirical study were weighted according to the type of methodology, data and overall quality of the research design that was used. The studies then received scores that reflected the strength of findings.

Impact/Result:

The overall assessment was that the evidence for community-based health insurance in low-income countries is still very limited. The author categorized the results of the review in three groups, according to the strength of findings: “There is strong evidence that community-based health insurance provides some financial protection by reducing out-of-pocket spending. There is evidence of moderate strength that such schemes improve cost-recovery. There is weak or no evidence that schemes have an effect on the quality of care or the efficiency with which care is produced” (249).

Lessons Learned:

According to the conclusions of the review, the current base of evidence, although limited, indicates that community-based health insurance serves at most as a complement to other forms of health financing.

Gauri, V., Cercone, J., & Briceno, R. (2004). Separating financing from provision: evidence from 10 years of partnership with health cooperatives in Costa Rica. *Health Policy Plan*, 19(5), 292-301.

Country/Region: Costa Rica.

Study Design: A (Experiment, quasi experiment, or time series analysis). Panel data set in Costa Rica 1990-1999.

Study Population: Traditional public clinics and cooperatives in Costa Rica.

Measures:

Mortality <1 year and <5 years per 1,000 live births; life expectancy; health services provided per capita (general medical visits, specialty medical visits, emergency visits, total laboratory exams, total medicines prescribed, clinics expenditures).

Definition/Function:

Based on a principal-agent theoretical perspective, the paper discusses the utilization of market-like instruments in public sector health reforms. In the most extreme situation, the separation of financing from provision of health would be to transfer public facilities directly to private actors. However, this extreme model is less common, and mixed approaches are more frequently observed. The study offers an empirical investigation on the effects of the separation of financing and provision by focusing on the case of Costa Rica, in which several public clinics were converted into health cooperatives. The health cooperatives are required to provide public services as defined by elected officials, but their earnings are distributed among employees. Thus, they constitute a hybrid between a for-profit and a nonprofit institution. The empirical strategy of the paper was to use a panel data set to compare the performance of health cooperatives with that of traditional public clinics in the social security system in Costa Rica.

Impact/Result:

The study conducted a comparison between traditional public clinics and cooperatives, controlling for community socioeconomic characteristics, annual time trends, and clinic complexity. The results indicated that “the cooperatives conducted an average of 9.7-33.8% more general visits (95% confidence interval), 27.9-56.6% more dental visits, and 28.9-100% fewer specialist visits” (292). Other results showed that “cooperatives authorized 30.4-60.5% fewer sick days (95% confidence interval), conducted 24.7-37.2% fewer lab exams, and gave out 26.7-38.3% fewer medications per visit than the traditional public clinics. Real total expenditures per capita in cooperatives was 14.7-58.9% lower than in traditional clinics” (292). The authors interpreted the findings as evidence that cooperatives may be a way to preserve access to services while maintaining a sense of mission and efficiency. Thus, cooperatives may combine advantages of public and private service provision.

Lessons Learned:

The study shows that the use of right incentives to performance at the local level can be combined with requirements of access, in order to achieve both equity and efficiency.

Palmer, N., Mueller, D. H., Gilson, L., Mills, A., & Haines, A. (2004). Health financing to promote access in low income settings-how much do we know? *Lancet*, 364(9442), 1365-1370.

Country/Region: Developing countries.

Study Design: C (Systematic literature review). Literature review.

Study Population: Health financing interventions in developing countries.

Measures:

Each reviewed study used specific measures, not described in detailed in the review.

Definition/Function:

The review focuses on interventions that were designed to improve access to health services by raising or disbursing financial resources. According to the authors, improved access can be achieved in three main ways: "(1) reducing barriers to uptake of existing services, (2) increasing demand for existing services, by boosting quality or providing incentives for uptake or (3) extending service coverage to previously underserved areas" (1366). Empirical studies on the several types were included in the review.

Impact/Result:

User fees: a group of studies on Africa from 1995 onward indicated that usage fell after user fees were introduced, but detailed data about change in usage is generally not available. Fees were often introduced to improve quality or change availability of service, but it is difficult to separate these effects. *Community-based insurance or prepayment schemes:* most of the literature is concentrated on enrollment or financial health of the programs, and little is discussed about the impact of enrollment on individuals and communities. *Comparison of alternative cost-recovery systems:* a few studies that compared districts in which a program was implemented (user fees and social financing in Niger; micro health insurance in Rwanda) with districts with no intervention indicated increased in usage. *National health insurance:* nationwide surveys in Colombia indicated that out-of-pocket expenses decreased after the reform of national health insurance; a study on Costa Rica suggests that the expansion of the national health insurance system in the 1970s is not associated with the declines in infant and child mortality observed in the country. *Contracting health services:* a case-control study in Cambodia indicates that districts in which the delivery of health services was contracted to NGOs outperformed the ones which received a small subsidy for service delivery, in terms of immunization and attended deliveries. The increase in usage in contracted districts seems to be associated with higher participation of low income households. *Conditional cash transfers:* the Progresa program of cash transfers in Mexico was associated with improved growth and reduced rates of anemia in low income infants and children; a similar program in Honduras had large effects on coverage of antenatal care and well-child checkups; by contrast, the Bolsa-Alimentação program of cash transfers in Brazil was associated with reduced weight-for-age scores for children in beneficiary households.

Bossert, T. J., Larranaga, O., Giedion, U., Arbelaez, J. J., & Bowser, D. M. (2003). Decentralization and equity of resource allocation: evidence from Colombia and Chile. *Bull World Health Organ*, 81(2), 95-100.

Country/Region: Colombia and Chile

Study Design: D (Cross-section without control). Comparative case study (“decision space” approach, combined with and analysis of expenditure and utilization rates).

Study Population: National health systems in Latin America.

Measures:

National and local expenditures per capita by municipal income decile; expenditures on primary municipal health care per capita by municipal income decile; expenditures in municipal primary health care per capita by municipal income decile.

Definition/Function:

The main objective of the paper is to investigate the relationship between decentralization and increased equity of resources. The authors argue that higher levels of equity in Colombia and Chile were obtained with the use of the following policy mechanisms associated with decentralization: “the use of allocation formulae, adequate local funding choices and horizontal equity funds” (95).

Impact/Result:

Based on the analysis of the cases of Colombia and Chile, the study concluded that “decentralization, under certain conditions and with some specific policy mechanisms, can improve equity of resource allocation” (95). The findings about the impact of decentralization on equity of utilization were less clear, but the authors argue that increased equity of funding over time is associated with increased equity of utilization and therefore, “improved equity of funding over time might reduce inequities of service utilization” (95).

Lessons Learned:

If the appropriate mechanisms are put into place, decentralization may be a tool for more equitable health systems, both in terms of resource allocation and service utilization.

Abrantes Pego, R., & Almeida, C. (2002). [Theory and practice of the health systems reforms: the cases of Brazil and Mexico] (Article in Spanish). *Cad Saúde Pública*, 18(4), 971-989.

Country/Region: Brazil and Mexico.

Study Design: E (Observation). Comparative case study (qualitative).

Study Population: National health systems of Mexico and Brazil.

Measures:

No specific measures were discussed in this article.

Definition/Function:

The article discusses the influence that public health experts had on the design and implementation of health reform processes in Brazil and Mexico. In Brazil, a group of researchers and professionals introduced the concept of “Collective Health” (Saúde Coletiva), which emphasized the role of social variables as predictors of health status, and the central role of social class towards the determination of health needs. This movement was largely a response to the characteristics of social intervention during the military dictatorship.

By contrast, the concept of “new public health” (nueva salud pública) in Mexico was framed around the issues of competition, free choice, and participation of users and other social actors in the health sector. The new public health movement was structured as a response to the interventionist role of the State as the organizer of development.

Impact/Result:

The “Collective Health” concept in Brazil resulted in the design of a universal and integrated health system (the SUS), with social participation at different levels of decision. The model of the unified health system was thought as a means to revert a tendency of pursuing medical solutions to social problems.

In Mexico, the “new public health” concept resulted in a strategy of rationalization of expenditure in public health and liberalization of the markets of health services. Here, the new public health model was understood as a means to revert a tendency of making political use of social issues.

ILO. (2002). *Extending social protection in health through community based health organization*. Geneva: International Labor Organization.

Country/Region: Developing countries (Africa; Asia; Latin America and Caribbean; South Pacific).

Study Design: C (Systematic literature review). Literature review, meta-analytical study of community-based health organizations (CBHOs), with data collected from previous studies (258 cases of CBHOs, collected from 127 studies).

Study Population: CBHOs in developing countries.

Measures:

The original measures were varied since they were collected from previous studies. Dependent variables: health status, as reported by the original studies; any measure of utilization of services; evidence of impact of financial protection which are more comprehensive than out-of-pocket expenditures; dignity, assessed by any evidence that human rights conditions of members were improved by CBHOs or any evidence of non-health benefit that was provided by CBHO membership. Independent variables: technical design of CBHOs, including characteristics of the scheme benefit package, and financial and purchasing arrangements; organizational and institutional incentives, including market exposure and sources of financing, accountability, financial responsibility, unfunded mandates, ownership, governance, and rules on public funding.

Definition/Function:

The main objective of the study was to assess the evidence base for the effectiveness of community-based health organizations in providing social protection for its members and for the society at large. The study also aimed to identify the main determinants of good performance of CBHOs and what kinds of CBHOs are more effective. A third point of investigation was to identify the groups that benefited from social protection provided by CBHOs, with particular interest on the poorest. The paper analyzed the impact of CBHOs on health status, utilization, financial protection, and dignity, and evaluated how these outcomes are associated with technical content, organization and institutional incentives of the organizations.

Impact/Result:

According to the paper, "the study found very limited evidence of positive impact of CBHOs, in the published literature, as a strategy for the extension of social protection in health to their members and/or society at large, for any of the three dimensions analyzed or for other possible benefits" (42). Given the lack of evidence of impact, the study could neither identify the determinants of good performance nor the groups who benefit from social protection provided by CBHOs.

Lessons Learned:

The limited evidence available makes it difficult to obtain lessons from existing literature on CBHOs. Evaluation studies are needed to assess the characteristics of CBHOs and, which is even more important, to evaluate the impact of these organizations on their members and on society at large.

Gideon, J. (2001). The decentralization of primary health care in Chile. *Public Administration and Development*, 21(3), 223-231.

Country/Region: Chile

Study Design: E (Observation). Descriptive case study.

Study Population: Health system

Measures:

Primary care services delivery systems

Definition/Function: The article refers to the Chilean approach as being centered on a holistic "Family Health Focus": the "central idea of the approach is that staff will not just treat the medical symptoms in a patient, but will also consider ways in which the family situation may help or hinder the patient's recovery and may be a contributory cause of the symptoms." (228)

Impact/Result: Describes process of decentralization from federal to municipal levels. Current problems stem from the fact that administrative decentralization has occurred without an equal measure of fiscal and political decentralization.

Andrade, L. O. M. d., Pontes, R. J. S., & Junior, T. M. (2000). A descentralização no marco da Reforma Sanitária no Brasil. *Rev Panam Salud Publica*, 8(1/2), 85-91.

Country/Region: Brazil

Study Design: E (Observation). Qualitative (descriptive).

Study Population: National health system in Brazil.

Measures:

A few measures of decentralization are briefly mentioned in the study, including: percentage of municipalities in the countries that have qualified for local management of the health systems; percentage of population covered by local health systems.

Definition/Function:

The article describes the evolution of the national health system in Brazil, with a particular focus on the establishment of a Unified Health System (Sistema Único de Saúde) and the process of decentralization that has taken place since the late 1980s. The Unified Health Systems follows a set of principles established in the 1988 Constitution, which include: health as a right of the citizens, universal health coverage, equity, decentralization and community participation, integration, shared financing among the different levels of government, and complementary participation by the private sector.

According to the article, the process of decentralization has been the result of negotiation and discussions among the three levels of government in Brazil (municipal, state, and federal), and the creation of institutional arrangements such as councils of municipalities and states. Several regulations introduced in the 1990s have established the increasing participation of municipalities in the management of the health systems.

Impact/Result:

On the positive side, the author argues that the increased levels of decentralization have strengthened democracy in Brazil, and several innovative and successful programs, such as the Family Health Program, have been introduced as a result of the health reform model in Brazil. According to the article, the reform and decentralization of the health system are based on the principles of solidarity and social justice, and has been a very rich experience.

On the negative side, however, disparities in health and income are still major problems in the country, and the process of decentralization has in many cases created new problems for equity. Appropriate models of financial and the role of the states' governments in the process of decentralization are still ongoing challenges.

Lessons Learned:

While the process of decentralization in Brazil has led to many progresses, the country still faces many obstacles for the reform of its health system. Even when appropriate principles for reform are chosen, implementation presents organizational challenges.

Barrientos, A., & Lloyd-Sherlock, P. (2000). Reforming health insurance in Argentina and Chile. *Health Policy & Planning*, 15(4), 417-423.

Country/Region: Argentina and Chile

Study Design: E (Observation). Comparative case study (qualitative and quantitative measures).

Study Population: Health insurance systems in Argentina and Chile.

Measures:

The main measures used in the study were: health insurance coverage for the population, and divided by age group and by quintile of per capita household income.

Definition/Function:

According to the article, the objective of the health insurance reforms in Chile and Argentina was improve the use of individual health insurance provided by the private sector as a complement to social health insurance administered by the State.

In the case of Chile, the reforms that were introduced in the 1980s created the possibility of competition between private health insurance providers and the social health insurance system. In the case of Argentina, the reforms that were introduced in the 1990s aimed to introduce competition within the union-based social insurance system and to create access to private insurance providers to this market.

Impact/Result:

The main results of reforms were that in the proportion of population covered by private health insures increased in both countries, by the main reason why overall access remains elevated is that the public sector still serves as the provider of last resort. Rather than improving equity, the reforms have reinforced segmentation in the system, as high income, low health risk groups are primarily covered by private providers and low income, high health risk groups are primarily covered by social insurance. Therefore, the ability of social insurance to pool risks is limited. In terms of cost containment, the strategy of fee-for-service that has been pursued by private providers has done little to reduce costs.

Lessons Learned:

Improvements in the patterns of coverage, equity, and cost containment still haven't been achieved in Argentina and Chile. Better mechanisms of integration of private and social insurance have to be put in place if these objectives are to be reached.

Bossert, T. J. (2000). Decentralization of health systems in Latin America. *Rev Panam Salud Publica*, 8(1/2), 84-92.

Country/Region: Latin America

Study Design: D (Cross-section without control). Comparative case study (“decision space” approach).

Study Population: Health systems in Latin America.

Measures:

The “decision space” was measured using an assessment on the range of choice for the following dimensions of health systems: financing, service organization, human resources, access rules, governance rules. Equity was measured using the following indicators: level of expenditures on municipal primary health care per beneficiary in Chile by deciles of municipal income; distribution of municipal disposable revenue per inhabitant before and after reallocations of Municipal Common Fund; and Gini coefficient of inequality before and after reallocations of Municipal Common Fund.

Definition/Function:

The authors makes a comparative analysis between the cases of Chile and Bolivia by using a “decision space” approach. This analytic framework views the process of decentralization as a series of “principal-agent” relationships, in which the central authority (the principal) transfers responsibilities and funding to the local authorities (the agents). The principal puts incentives in place in order to influence the choices that are going to be taken by the agents towards an improved health system. Thus, the analysis assesses the extent to which local authorities are allowed autonomy to make decisions over the various dimensions of health reform, which the authors call “decision space”. The authors argue that, for the cases of Chile and Bolivia, “relatively little space was allowed to local authorities over key functions of health care systems” and “central authorities often reduce the decision space in order to direct more resources to health or to restrict local choice over human resource issues” (84).

Impact/Result:

The study concluded that for the Chilean case, “more equitable allocations of health funding were achieved through a common equalization fund for the municipalities” (84). In the case of the Bolivia, the study found that local spending on health was reduced whenever local authorities had autonomy to allocate resources for health or other policies, lowering health funding equity. However, the central government was able to maintain equity by earmarking a specific percentage of transfer to spending in health.

Lessons Learned:

Even among two of the most decentralized systems in Latin America – Bolivia and Chile – the level of real autonomy for local authorities is considerably low. Therefore, the potential for gains from decentralization has not been fully explored. Moreover, specific tools – such as common equalization funds and earmarking funds for health – can be used to preserve equity.

Gilson, L., Kalyalya, D., Kuchler, F., Lake, S., Oranga, H., & Ouendo, M. (2000). The equity impacts of community financing activities in three African countries. *Int J Health Plann Manage*, 15(4), 291-317.

Country/Region: Benin, Kenya, Zambia

Study Design: E (Observation). Informants were selected through purposive samples in selected geographical areas in each country and additional data on utilization.

Study Population: "Poor" adults (poverty defined for each country).

Primary Care Measures: How successful was the Bamako Initiative? Criteria included: 1) retention and use of revenue at site, 2) flexibility/adaptability of the payment scheme, 3) mechanism(s) to subsidize the poorest groups, 4) community involvement, and 5) support from other levels of the health systems.

Definition/Function: No explicit definition of primary health care is given.

Impact/Result: In Benin the Bamako Initiative program can be judged as successful in terms its own (limited) equity objectives, but the other two countries had equity problems. In Benin, the poorest experienced the greatest improvement in curative, immunization and antenatal care, but overall levels of utilization were low among the rural poor. Relative affordability gains occurred in Kenya, but gains were not sustained over time. No gains were identified in Zambia. In addition, none of the programs studied were able to implement effective exemption mechanisms to protect the poorest from the burden of payment.

Knippenberg, R., Soucat, A., Oyegbite, K., Sene, M., Bround, D., Pangu, K., et al. (1997). Sustainability of primary health care including expanded program of immunizations in Bamako Initiative programs in West Africa: an assessment of 5 years' field experience in Benin and Guinea. *Int J Health Plann Manage*, 12 Suppl 1, S9-28.

Country/Region: Benin and Guinea

Study Design: B (Cross-section with control). Pre- and post- analysis of secondary data.

Study Population: Health systems and health centers in Benin and Guinea.

Measures:

Measures of effectiveness: DPT3 and polio immunization coverage, full antenatal care coverage (at least three visits), per capita curative care visits. Measures of efficiency: total costs per health center, cost per fully vaccinated child, cost per woman receiving antenatal visits. Measures of financial viability: percentage of revenue covered by user fees. Measures of equity: percentage of population covered by health services, grouped by income levels.

Definition/Function:

The authors offer the following definition of sustainability of primary health care PHC: *"the production of health outputs and outcomes at optimized efficiency and uninterrupted inputs"* (S11). This definition encompasses the dimensions of effectiveness of the system, efficiency of services, and financial viability, to which the authors add the dimension of sustainable equity. For a primary health care system to achieve sustainability, the following conditions are required: self-reliance, managerial sustainability, and social sustainability. Given this analytical framework, the study assesses the levels of effectiveness, cost-effectiveness/efficiency, financial viability and equity achieved by the actions implemented in Benin and Guinea between 1988 and 1993 in the context of by the Bamako Initiative.

Impact/Result:

In terms of effectiveness, the study found that overall immunization coverage, full antenatal care coverage, and utilization of curative care increased both in Guinea and Benin, despite some variation in results at the level of individual clinics. In Guinea, outreach activities were shown to be particularly effective for improving immunization and antenatal care coverage. In terms of cost-effectiveness, since total costs remained stable while coverage was improved in many health centers, there were improvements in overall cost-effectiveness ratio. In terms of financial viability, the level of cost recovery remained stable while coverage increased. Finally, in terms of equity, improvements in the use of preventive services were observed for the richer and poorer, while use of curative remained unequal.

Lessons Learned:

The experience of Benin and Guinea suggests that top-down and bottom-up approaches should be combined for improved sustainability.

Gonçalves, M. d. L., Almeida, M. C. P. d., & Gera, S. C. (1996). [Municipalization of vaccination in Ribeirão Preto, São Paulo, Brazil] (in Portuguese). *Cad Saúde Pública*, 12(1), 79-87.

Country/Region: Brazil (city of Ribeirão Preto, São Paulo State).

Study Design: D (Cross-section without control). Case study (qualitative and quantitative measures).

Study Population: Vaccination services in Ribeirão Preto, Brazil.

Measures:

Some of the indicators for the quality of vaccination services include: opening hours for vaccination rooms; presence of adequate refrigeration systems for vaccines; distribution of vaccination personnel in clinics; frequency of problems with patients.

Definition/Function:

The study focused primarily on the organizational aspects of the vaccination program in a municipality in Brazil, after the decentralization from federal and state levels towards the municipal level. The authors also analyzed the level of local autonomy within the municipality. The main objectives of the transference of immunization services to the municipalities was to increase administrative, technical and political decentralization, to provide greater autonomy for the local clinics, to expand the supply of services, and to improve quality.

Impact/Result:

The authors concluded that there was an increase in availability and improvements in the main indicators of quality of vaccination services after the decentralization. Within the municipal level, however, the decisions about immunization, including training of personnel, were centralized from the individual clinics to the municipal service of epidemiological vigilance.

Lessons Learned:

The decentralization of services to the municipalities does not automatically mean that local clinics will have greater autonomy and participation. It is possible that a macro-decentralization program at the national level (from national to municipal authorities) will lead to great micro-centralization at the local level (from clinics to municipal authorities).

5. Human Resources

Hunter, D. J., Shortt, S. E., Walker, P. M., & Godwin, M. (2004). Family physician views about primary care reform in Ontario: a postal questionnaire. *BMC Fam Pract*, 5(1), 2.

Country/Region: Canada (Ontario)

Study Design: D (Cross-section without control). Descriptive study (cross-sectional postal survey).

Study Population: Family physicians in Ontario.

Measures:

The study assessed the family physician's level of agreement with the following statements about primary care reform: "I understand the Ontario Family Health Network well enough to make informed decisions about my involvement"; "I expect to be part of the Ontario Family Health Network by 2004"; "I expect to be part of the Ontario Family Health Network at some time after 2004"; "The current system for the organization of primary care delivery in Ontario needs to be changed"; "A capitation formula based for funding physician services would improve primary care services in Ontario"; "A roster that links a patient to a single care provider would improve primary care in Ontario"; "Appropriate financial incentives would enhance preventive interventions in primary care"; "Patients should always have access to extended weeknights and weekend office hours"; "A telephone health line staffed by a qualified nurse is a good resource to direct patients to appropriate care"; and "I would like to see computer systems replace most of the paper systems in my practice".

Definition/Function:

The authors argue that the reform of the primary health care system in Ontario has proceeded thus far without appropriate levels of information on physicians' views on the need and existing plans for reform. Therefore, the authors conducted a postal survey to assess the view of physicians. The survey collected information on the characteristics of the family physicians, their intention to join the new model of primary health care, and the physicians' perceptions about organization and financing of primary care in Ontario.

Impact/Result:

Based on a survey response rate of 50.3%, the study concluded that "while many family physicians recognize the need for change in the delivery of primary care, the majority (72%) did not expect to join the Ontario Family Health Network by 2004, or by some later date (60%). Nor did they favour capitation or rostering, 2 key elements of the proposed reforms. Physicians who favour capitation were 5.5 times more likely to report that they expected to join the Network by 2004, although these practices comprise 5% of the sample". Given these findings, the authors conclude that the target enrollment of 80% of the physicians in the Ontario Family Health Network is an unrealistic goal.

Kupfer, L., Hofman, K., Jarawan, R., McDermott, J., & Bridbord, K. (2004). Strategies to discourage brain drain. *Bull World Health Organ*, 82(8), 616-619; discussion 619-623.

Country/Region: United States

Study Design: E (Observation). Policy paper / case study.

Study Population: Health researchers from developing countries who are trained in developed countries.

Measures:

Rate of return of the researcher to country of origin upon completion of training program in the United States

Definition/Function:

The authors discuss the strategies that were used by the AIDS International Training and Research Program (AITPR) to ensure that researchers from the developing world would return to their native countries upon completion of their studies in the United States. The strategies used by AITPR were categorized in three main groups. First, the scientific strategies were: research is responsive to priorities in the home country; training-related research is conducted at home; strategic in-country trainee selection; strong mentoring in the United States and in the home country; equipment support; journal and internet access; professional networking support; re-entry funding; and support with writing grant applications. The political strategies were: temporary visa; return agreements; training for decision-making in developing countries. Finally, the economic strategies were: repayment agreements; and letters of future job support.

Impact/Result:

The paper reports an average rate of return home of 80% for the 186 AITRP trainees who came from 38 low- and middle-income countries.

Lessons Learned:

A correct combination of incentives and sanction can be built into cooperation and training programs to improve the probability that the trainees will return to developing countries upon completion of their studies.

Wyss, K. (2004). An approach to classifying human resources constraints to attaining health-related Millennium Development Goals. *Hum Resour Health*, 2(1), 11.

Country/Region: Low-income countries.

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Human resources for health in developing countries.

Measures:

Individual characteristics: proportion of women in the workforce by skill level; representation of health workers from minority groups; number of applicants per training position; HIV/AIDS prevalence rates among health workers. *Health service level:* number of team meetings and supervisions; proportion of health staff working in correctly staffed services; proportion of health staff working in correctly equipped services. *Health sector level:* salary grids in absolute terms; existence of frameworks for managing the collection and use of performance evidence (including carrier plans); shortages or surpluses of staff in particular occupations or professions / appropriately skilled workers for addressing priority diseases (e.g. HIV/AIDS, malaria, TB); distribution of appropriately skilled workers across regions; existence of retention policy; improvements in performance and responsiveness to adjust staff roles; planning of future HRH availability and requirements. *Training capacities:* number of trainees per skill level; number of re-trainees per skill level. *Socio-political and economic context of a country:* quality of exchange among different interest groups and ministries; number of health staff migrating; political stability, priority attached to social sectors, decentralization, civil service rules, etc.

Definition/Function:

The paper argues that there are a number of human resource-related constraints to the attainment of Millennium Development Goals in low income countries. Such constraints can be categorized into one of the following 5 levels: individual characteristics, health service level, health sector level, training capacities, and socio-political and economic context of a country. The author further suggests that any attempts to scaling up the delivery of health services must incorporate investments in initial and continuous training at their early stages, because of the lead time that is necessary for the preparation of new health workers.

Impact/Result:

The author estimates the size of human resource constraints for scaling up health services in low and middle income countries as follows. *Moderate:* demand for medical training; physical working environment. *Important:* gender; disease*; team building and interaction; surpluses, shortages and skill mix at health service level; salary level and monetary incentives; composition of workforce and skill mix; retention policy; health sector reform; multisectorial approaches; migration. *Very important:* social class and ethnicity of staff; performance management and productivity; geographical imbalances; HRH policy; initial training; re-training; governance and overall policy framework.

Anand, S., & Baernighausen, T. (2003). Human Resources and Health Outcomes. *Joint Learning Initiative Working Paper*, 7-2.

Country/Region: 117 countries from different regions and income levels.

Study Design: B (Cross-section with control). Econometric analysis of secondary data.

Study Population: Human resources for health.

Measures:

Dependent variables were health outcome measures: maternal mortality rate; infant mortality rate; under-5 mortality rate. Independent variables were human resource measures: physician density per 10,000 population; nurse density per 10,000 population; human resources for health (sum of the number of physicians, nurses and midwives) density per 10,000 population. Control variables: gross national income per capita, (PPP adjusted); female literacy rate; percentage of the population living on less than \$1 a day.

Definition/Function:

The study used a cross-sectional sample of 117 countries to examine the impact of the density of health professionals on the following measures of population health included as Millennium Development Goals indicators: maternal mortality rates, infant mortality rates, and under 5 mortality rates. The authors the coefficients of regression equations including the health indicators as dependent variables, and the density of human resources for health, physicians and nurses as the main independent variables. The only control variables included in the equations were gross national income per capita, female literacy, and income poverty.

Impact/Result:

The authors found that human resources for health in aggregate terms had a significant effect on the three measures of health outcome: maternal mortality rate, infant mortality rate, and under-5 mortality rate. Controlling for income poverty, the results of three separate regressions indicated that a 1% increase in the density of human resources for health resulted in a decrease of 0.461% in maternal mortality rate, a decrease of 0.187% in infant mortality rate, and a decrease of 0.203% in under 5 mortality rate ($P < 0.01$ for the three coefficients). Further analysis indicated that without controls for income poverty, a 1% increase in the density of physicians resulted in a decrease of 0.331% in maternal mortality rate, a decrease of 0.182% in infant mortality rate, and a decrease of 0.224% in under 5 mortality rate ($P < 0.01$ for the three coefficients). Also without controls for income poverty, a 1% increase in the density of nurses resulted in a decrease of 0.152% in maternal mortality rate ($P < 0.10$).

Lessons Learned:

The study indicates possible impacts of human resources for health on health outcomes. It should be noted, however, that the study may have omitted important control variables, combined developed with less developed countries, and conducted a single year analysis. Therefore, it is difficult to establish causal claims from these results.

Pan American Health Organization. (2003, 26 and 27 October 2003). *Primary Health Care and Human Resources Development*. Paper presented at the Global Meeting on Future Strategic Directions for Primary Health Care, Madrid, Spain.

Country/Region: the Americas.

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Human resources for primary health care.

Measures:

The paper does not discuss specific measures.

Definition/Function:

The paper argues that there are persistent imbalances in the distribution of human resources for health, which motivates “a clear need for specific government planning and regulation in education, employment, labor markets, and professionalization processes” (3). Such imbalance has direct implications on the human resources component of primary health care, which require that incentives are put into place for professionals to remain in difficult areas. Furthermore, the multidisciplinary aspect of PHC reinforces the need for reformed curriculum contents and the introduction of new actors in the professional health arena, including “family and community physicians, Family/Community Nurses, Health Assistants (ACS), [and] Public Health Officials” (6). The paper points out the main current issues with human resources, grouped within three dynamics. First, elements of patrimonial bureaucracy persist in ministries of health in developing countries, with the following characteristics: high percentage of State expenditures allocated to health workers, imbalances in the makeup of the available pool of personnel, inequities in the geographical allocation of resources, gender inequities, imbalances in the makeup of health care teams, limited development of information systems, and little integration between training and services. A second dynamic results from a trend towards managerialism characterized by: decentralization, labor flexibility, demands for new regulation, incentives to productivity, uncontrolled increase in the supply of health education, and challenges in training for the new skills required for reform. The third dynamic has emerged from the impact of globalization, and is marked by: disintegration of health authority, indiscriminate international recruitment, need for standardization of titles and professional practices, growing emigration of professional nurses, lack of protection for the national production of human resources (brain drain), accreditation of educational processes at national and international levels, and weakness of public health systems with respect to global public policy management.

Impact/Result:

The paper does not discuss measures of impact. However, given the context and the dynamics presented above, it identifies the following requirements: the need for a national and regional vision to regulate the availability of human resources to improve the accessibility and quality of a country's/region's health systems; take advantage of the international trend toward monitoring and ensuring social rights, particularly health-related rights; utilization of new technologies; consensus building among local, national, and international actors; adoption of PHC as the organizational center of the health system at the national and subnational levels; and take advantage of knowledge of efficient PHC-based health service management models.

6. Millennium Development Goals

Freedman, L., Wirth, M., Waldman, R., Chowdhury, M., & Rosenfield, A. (2004). *Millennium Project Task Force 4: Child Health and Maternal Health-Interim Report*. New York: UN Millennium Project.

Country/Region: Developing countries.

Study Design: F (Policy paper or non-systematic review). Policy review.

Study Population: Health systems in developing countries.

Measures:

The MDG's for child and maternal health are expressed as under-five mortality rate and maternal mortality ratio, but the report also uses other measures to evaluate progress.

Definition/Function:

The purpose of the report is to evaluate the progress towards child and maternal health MDG's. The authors suggest that the main challenges for achievement of the goals are related to organizational issues, and not to medical technology. The main argument of the report is that there is an important distinction between the evidence-base for interventions and the evidence-base for implementation within political and socioeconomic contexts. This distinction emphasizes the difference between the efficacy of interventions and the effectiveness of delivery strategies. Therefore, it is important to incorporate the type of research into the evidence base that uses the social and political dimensions of health and health care as a starting point. The report emphasizes that "scaling up" is an under-theorized and under-conceptualized problem in the literature. When small-scale, effective interventions are extended to larger populations, a number of obstacles arise due to lack resources. Thus, the recommendations of the report are based on a systemic perspective.

Impact/Result:

The main recommendations of the report can be summarized as follows: 1) Successful scale-up of interventions proven to be effective in addressing key child health and maternal and reproductive health conditions requires a conceptual shift to a focus on health systems in an actual systemic perspective; 2) Solutions for the crisis in human resources for health must be conceptualized globally as well as locally, with the cooperation of multiple sectors; 3) Sexual and reproductive health and rights (SRHR) are essential to meeting all the MDG's; 4) Maternal Mortality strategies must focus on building a functioning health system that provides access to emergency obstetric care; 5) Strategies to address neonatal mortality are critical for reductions in child mortality, and those should be linked to strategies to address maternal mortality; 6) Poverty reduction processes and funding mechanisms, as well as developments in the system of global governance should support and promote the above recommendations and not undermine them; 7) The equitable participation of communities, of civil society organizations, and of individuals in these processes will be critical to their success and to the fulfillment of basic human rights; and 8) Ministries of Finance and Planning, as well as international and bilateral donors, must recognize that health is not only an important aspect of human and social development in itself, but also a crucial factor in economic growth.

Kekki, P. (2004). Primary health care and the Millennium Development Goals: issues for discussion. Geneva, WHO.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). Policy paper

Study Population: Health care systems in developing countries

Measures:

The article mentions the health-related indicators for measuring progress towards the Millennium Development Goals (MDG's): prevalence of underweight children under 5 years of age; under-5 mortality rate, infant mortality rate, proportion of 1-year-old children immunized against measles; maternal mortality rate; proportion of births attended by skilled health personnel; HIV/AIDS prevalence among young people aged 15 to 24; condom use rate of the contraceptive prevalence rate; number of children orphaned by HIV/AIDS; prevalence of death rates associated with malaria; proportion of population in malaria risk areas using effective malaria prevention and treatment measures; prevalence and death rates associated with tuberculosis; proportion of tuberculosis cases detected and cured under Directly Observed Treatment, Short Course (DOTS); proportion of population using solid fuels; proportion of population with sustainable access to improved water source, urban and rural; proportion of urban population with access to improved sanitation; proportion of population with access to affordable essential drugs on a sustainable basis.

Definition/Function:

The author argues that the MDG's related to health are biased towards vertical programs, since they are either disease-specific or narrowly target a problem area. Therefore, they are not aligned with the main principles of primary health care, which "emphasize universal access and coverage, PHC's role as the site of first contact, coordination and integration of services and programmes" (1). Moreover, because effective coordination between vertical programs and the development of an infrastructure for PHC is difficult to achieve, the author suggests that best option would be to advocate against vertical programs altogether.

The paper points out that many problems persist with the PHC infrastructure in developing countries. According to the author, the weaknesses of primary health care in developing countries look similar to those in the 1980s, including: lack of national capacity for policy analysis and formulation, weak managerial capabilities at all levels, inequitable and inefficient resource allocation, poor working conditions for health workers, limited intersectorial collaboration, weak health and management information systems, limited use of quality improvement techniques and lack of evidence-based policy and practice (Kekki, 2003).

Impact/Result:

No evidence of impact is presented in the paper. However, the author recommends that that PHC needs to be strengthened not only to meet the MDG's, but also to meet other growing challenges, including a "rapidly changing environment, the changing disease panorama, changes in society, ageing populations, poverty, and unhealthy lifestyles" (145).

Nullis-Kapp, C. (2004). The knowledge is there to achieve development goals, but is the will? *Bulletin of the World Health Organization*, 82(10), 804-805.

Country/Region: Developing countries

Study Design: F (Policy paper or non-systematic review). News report.

Study Population: Health care systems in developing countries .

Measures:

Several health indicators are cited in the article, including: measures Infant mortality rate; maternal mortality rate; number of deaths preventable by use of breast-feeding, insecticide-treated materials, and oral rehydration therapy.

Definition/Function:

The article informs that the overall progress for achievement of the Millennium Development Goals has been very slow and unless important changes take place, most of the health targets will not be met by the year 2015. According to reports published by Task Force Four in September 2004, 10.8 million children under 5 years old are dying each year, and mortality rates are increasing in some parts of sub-Saharan Africa. The same report also informed that maternal mortality also remain high at approximately 530,000 deaths per year. Communicable diseases such as HIV/AIDS and tuberculosis also remained a concern.

Impact/Result:

The article informs about success stories that were included in a study by Center of Global Development, including: “measles immunization in seven southern African countries virtually eliminated the disease as a cause of childhood death, and helped reduce the number of cases from 60,000 in 1996 to just 117 in 2000; trachoma, the leading cause of blindness, was cut by more than 90% in Morocco through a combined strategy of surgery, antibiotics, face-washing and environmental controls; malaria control in the United Republic of Tanzania was boosted by a social marketing campaign which dramatically increased the use of insecticide-treated bednets in rural areas and increased child-survival by nearly one-third; a guinea worm eradication drive focused on behavioral change resulted in the reduction of disease prevalence by 98% in 20 endemic African and Asian countries; oral rehydration therapy in impoverished North-east Brazil cut child deaths due to diarrhoeal disease from 13% to 4%” (805).

Task Force on Health Systems Research. (2004). Informed choices for attaining the Millennium Development Goals: towards an international cooperative agenda for health-systems research. *Lancet*, 364(9438), 997-1003.

Country/Region: Developing countries.

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health systems in developing countries; health systems research.

Measures:

No specific measures are offered in the paper.

Definition/Function:

The authors argue that constraints on health systems are among the main obstacles to the achievement of the Millennium Development Goals (MDG's). However, there is little knowledge available on how to improve health systems and therefore it is essential to improve the quantity and quality of health systems research.

The paper suggests a research agenda to improve health system research, including the topics listed below, grouped by categories. "Financial and human resources: Community-based financing and national health insurance; Human resources for health at the district level and below; Human resource requirements at higher management levels. Organization and delivery of health systems: Community involvement; Equitable, effective and efficient health care; Approaches to organization of health services; Drug and diagnostic policies. Governance, stewardship, knowledge management: Governance and accountability; Health information systems; Priority setting and evidence-informed policy making; Effective approaches for intersectorial engagement in health. Global influences: Effects of global initiatives and policies (including trade, donors, international agencies) on health systems" (998).

Impact/Result:

The authors argue that increased knowledge on most topics on the health system research agenda is likely to have impacts on the following Millennium Development Goals: Eradicate extreme poverty and hunger; Reduce child mortality; Improve maternal health; Combat HIV/AIDS, malaria, and other diseases. Some of the topics in the research agenda can also have impacts on the following goals: Ensure environmental sustainability; Develop a global partnership for development.

Lessons Learned:

Increased knowledge on health system is instrumental for the achievement of the Millennium Development Goals.

Travis, P., Bennett, S., Haines, A., Pang, T., Bhutta, Z., Hyder, A. A., et al. (2004). Overcoming health-systems constraints to achieve the Millennium Development Goals. *Lancet*, 364(9437), 900-906.

Country/Region: Developing countries.

Study Design: F (Policy paper or non-systematic review). Policy paper.

Study Population: Health systems in developing countries; health systems research.

Measures:

The paper does not offer specific measures, but makes references to the Millennium Development Goals.

Definition/Function:

The authors point out that although there are several effective interventions for the achievement of Millennium Development Goals, the progress towards these health goals have been disappointing. Furthermore, although there is growing agreement that strong health systems are essential for generating improved health outcomes, there is little knowledge about how to make health systems work better. Therefore, they advocate for the urgent necessity of more and better research on health systems in developing countries.

The authors argue that although it may be tempting to implement vertical service delivery programs due to their visibility and apparent short-term effectiveness, the use of parallel, vertical approaches is only appropriate in few circumstances. Among the problems cited for vertical parallel approaches are duplications of work, distortions in payment of personnel, disruptions caused by separate training programs, and distractions caused by reporting requirements to several donors and sponsors. Therefore, the paper argues for a system-wide perspective, which has the “advantages (...) that such a strategy increases the range of options and tackles root causes, and the benefits accrue to several, not single, priorities – i.e., efficiencies are possible” (903). This, however, does not mean that priorities or interest on outcomes should be abandoned, but rather that interconnections should be recognized and significant long term improvements should be pursued.

Impact/Result:

The paper does not offer specific evidence of impacts of health interventions or health reform.

Lessons Learned:

Although the Millennium Development Goals are formulated in terms of specific diseases, health practitioners and researchers should not lose the focus on systemic solutions. The pursuit discrete interventions risks perpetuating the long term problems of health systems and not tackling the root problems.

III. RESOURCES

Equinet. (2004). *Global Health Watch Newsletter*.

Available: <http://www.equinet africa.org/newsletter/index.php?id=2041>

The Global Health Watch (GHW) is an electronic mailing list that describes itself as: “a project which articulates civil society's vision for global health. It is a platform for the strengthening of advocacy and campaigns to promote equitable health for all.” Some of the issues to be discussed in the newsletter are: the commercialization of health and access to medicines, solutions and monitoring of the efforts of institutions and governments concerned with the promotion of health world-wide.

OMNI (Organising Medical Networked Information). (2004). *Primary Health Care*. Nottingham: University of Nottingham.

Available: <http://omni.ac.uk/browse/mesh/C0033137L0033137.html>.

OMNI (Organising Medical Networked Information) is an electronic resource that is a part of the BIOME website maintained by the University of Nottingham. According to the website, OMNI is “a gateway to evaluated, quality Internet resources in health and medicine, aimed at students, researchers, academics and practitioners in the health and medical sciences.” The link listed contains information on the topic of Primary Health Care.

Pan American Health Organization. (2004). *Primary Health Care Beyond Alma Ata*. Washington: PAHO.

Available: <http://www.paho.org/English/DD/PIN/almaata25.htm>

Special section of the Pan American Health Organization website that commemorates 25 years of the Alma Ata Declaration. The website contains articles, interviews, presentations about PHC and the main developments since the Alma Ata conference in written, audio, photo, and video formats.

United States Agency for International Development, Pan American Health Organization, World Health Organization, Partners for Health Reform Plus, Management & Leadership Program, Rational Pharmaceutical Management Plus Program, et al. (2004). *Latin America and Caribbean Health Sector Reform Initiative*.

Available: <http://www.lachsr.org/en/index.cfm>

According to the website, Latin America and Caribbean Health Sector Reform Initiative is an electronic resource that serves as “a network to support health reform through analysis, training and other capacity-building measures. (...) The Initiative main objective is to promote more equitable and effective delivery of basic health services by supporting regional activities for informed decision-making on health policy and management, health financing, health services improvement, decentralization and institutional development.” The site also offers information on technical assistance for the design, implementation and monitoring of national health sector reform processes.” Some of the issues included are: Human Resources Developments; Steering Role strengthening; Essential Public Health Functions and Extension of Social Protection in Health.

Schellenberg, C. (2001). *Primary [Health] Care and Women. An Annotated Bibliography*. British Columbia, Canada: National Coordinating Group on Health Care Reform and Women.

Available: <http://www.acewh.dal.ca/eng/reports/PrimaryHealthCare.pdf>

This bibliography mostly covers journals in Canada, United States and United Kingdom, and focuses on nursing journals. The selection of articles was prepared with regards to the following question: "Do policy and research related to primary [health] care consider gender, ethnicity, socioeconomic status, and other differences, and in what ways are these differences considered?" (1)

The materials are organized according to six groups: (a) definitions of primary health care and primary care; (b) gender and other differences in policy and research; (c) care recipients and their access to care; (d) services and providers; (e) payment schemes for patients and providers; (f) decision-making structures related to how, when, where, and what care is delivered.

With regards to the definition of primary care, the author of the bibliography points out that while "primary care" is often associated with "primary health care" and the medical dimensions of care, even the providers of primary health care often extend their interest "beyond service provision to the economic, social, cultural, and political experiences that shape people lives." The author does not ultimately offer a unique working definition for primary care, but suggests that many interpretations are possible from the reading of the bibliography.