Assessing the Efficacy of Health Research as a Development Strategy in Poverty Reduction Strategy Papers

NYU Wagner – COHRED Capstone Project

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Figure 1: Map of PRSPs

Abstract

In 1999, the International Monetary Fund and the World Bank introduced the Poverty Strategy Reduction Paper (PRSP) process as a requirement for developing countries to receive concessional assistance. This research project sought to explore whether PRSPs can serve as a mechanism for coordinating health research as a strategy for reducing ill-health and poverty in developing countries. For the purposes of this study, health research is defined as the generation of new knowledge using the scientific method to identify and deal with health problems and includes three main types—monitoring and evaluation, essential evidence for policy-making, and targeted interventions. A review of all full PRSPs that existed as of October, 2005 (49 countries in total) was done to assess the extent to which they considered research and evidence to inform decisions and the policy agendas for health sector activities including: monitoring and evaluation systems, health information systems, and specific types of health research. Contrary to a null hypothesis that health research would not be included in the PRSPs, this review found that 41 countries address aspects of health research. While only 8 countries address all three aspects of health research, 14 countries include research among health priorities. An extensive review of existing literature was complemented by interviews with experts from the World Bank, IMF and the international health and development fields based on the findings from the PRSP review. Generally, experts expressed an understanding of the importance of health research, but also stated that such awareness is not prevalent within developing countries. The importance of working with Ministries of Health and local parties was emphasized as to developing a critical mass in support of a research agenda for the health sector. From interview responses and PRSP review findings, conclusions were generated about the ability of the PRSP framework to promote health research. Overall, there is a need for further analysis about the potential relationship between the PRSP mechanism and health research. The completed paper resulted in an overview of the current state of health research in PRSPs and recommendations addressing how health research could be included on the policy agenda for poverty reduction strategies and how to ensure that the health research components of PRSPs are leveraged for the greatest effect.
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Abbreviations Used in the Paper

AIDS Acquired Immunodeficiency Syndrome
CAS Country Assistance Strategy
CMAJ Canadian Medical Association Journal
COHRED Council on Health Research for Development
DFID United Kingdom’s Department of International Development
GDP Gross Domestic Product
HIPC Highly Indebted Poor Countries
HDI Human Development Index
HIV Human Immunodeficiency Virus
IDA International Development Association
IFI International Financial Institutions
ILO International Labour Organization
IMF International Monetary Fund
INGOs International Non-Governmental Organizations
I-PRSP Interim Poverty Reduction Strategy Paper
MDGs Millennium Development Goals
MoH Ministry of Health
M&E Monitoring and Evaluation
PRS Poverty Reduction Strategy
PRSC Poverty Reduction Strategy Credit
PRSP Poverty Reduction Strategy Papers
R&D Research and Development
S&T Science and Technology
S&TFD Science and Technology for Development
STI Sexually Transmitted Infections
TB Tuberculosis
WB World Bank
WDR World Development Report
WHO World Health Organization
I. Introduction

Project Objectives

This research was conducted by a Capstone team at New York University Robert F. Wagner School of Public Service with the Council on Health Research for Development (COHRED). COHRED, a Geneva-based non-governmental organization, works to enable countries, especially the poorest, utilize health research to promote health, health equity and development. The analysis seeks to determine the level to which Health Research is included as a poverty reduction tool in poverty reduction strategies of developing countries. The analysis is based on review and analysis of the 49 full Poverty Reduction Strategy Papers (PRSPs)¹ that existed as of October 2005 and aims to evaluate:

- Whether PRSPs include health research as a strategy for reducing poverty
- Whether PRSPs are an appropriate potential mechanism for strengthening health research as a strategy in developing countries
- How health research is included in the policy agenda of countries with PRSP and how health research allows for informed decision-making regarding information systems, infrastructure development and resource allocation
- What is required to ensure that the health research components of PRSPs are used to greatest effect

The purpose of this inquiry is to generate effective policy recommendations, which will enable developing countries to utilize the potential of health research and, thus benefit from improved healthcare services. Indeed, “health research is necessary for countries to achieve better health, equity and development. Through health research, countries can:

- Improve their health systems using existing resources and knowledge
- Make effective, but expensive and complex health interventions simpler and more affordable
- Identify and measure inequity in health and monitor progress towards its elimination
- Provide evidence to set priorities for equity in health and inform policies
- Focus resources on national health priorities
- Identify wastage and ineffective actions
- Improve the understanding of, and address, people’s health needs
- Discover new ways to prevent and treat challenging diseases.”²

Research Justification

There is extensive literature on PRSPs generally and an increasing wealth of work on health and PRSPs. "Contributors to the latter include the World Health Organization, the World Bank, the United Kingdom’s Department for International Development (DFID), the International Poverty and Health Network, the Centre for Aid and Public Expenditure, and civil society organizations in the North and the South.”³
The World Health Organization (WHO) has been particularly active in evaluating the PRSPs for inclusion of and impact on health. Three specific projects focus on health, aid policy, and the PRSPs specifically—an E-learning course on Health Outcomes and the Poor, the WHO PRSP database, and a WHO monitoring project on poverty reduction strategies. The E-learning course targets professionals involved in the Poverty Reduction Strategy Papers process and focuses on individuals working on PRSPs, either in the countries engaged in writing them or in agencies that are assisting in the implementation or reviewing the documents. The course is conducted jointly by the Health, Nutrition, and Population Program of World Bank Institute and the Department of MDGs, Health and Development Policy of the WHO.

The WHO database on health in PRSPs provides an analysis of the health component of each country’s PRSP. The database reviews what each PRSP includes about the country’s health challenges, the proposed health strategies to meet those challenges, and the mechanisms in place to monitor progress. “PRSPs: Their Significance for Health: Second Synthesis Report” presents an analysis of PRSPs from a health perspective and is based on a review of 21 full PRSPs. The study had two main areas of inquiry—the extent to which improved health is seen to play a role in poverty reduction and the extent to which the health component of a PRSP identifies and proposes strategies to meet the specific health needs of poor people.

Studies have also been conducted to determine the efficacy of integrating science and technology applications in the poverty reduction strategies. It is widely acknowledged that poverty reduction is not a one-dimensional task, but rather requires the integration of numerous sectors. As such, studies have also been conducted which explore the general role of research in poverty reduction strategies across various sectors, including agriculture. In particular, a study completed by the African Technology Studies Network recognized the importance of science and technology in poverty reduction strategies.

The idea of incorporating health research into the PRSP framework is closely linked to the Millennium Development Goals (MDGs)—three out of eight MDGs are related to health—since health research is an effective tool for fighting the vicious cycle of ill-health, inequity, and poverty. For instance, there is an unmistakable link between health and health research, and more broadly between health research, economic development, and human and social development. This close link between health,
health research and development as depicted in Figure 2. The role of health research is not limited by contributing specifically to health or health systems. Health research is seen as a significant contributor to economic, human and social development, which in turn, should lead to improvements in health, first of all for the poor.

A joint study of the Rockefeller Foundation, the World Bank, and Canada’s International Development Research Centre found that “…the challenge of mainstreaming Science and Technology for Development (S&TFD) when country strategies fail to include these themes.” With a range of explanations for this oversight, respondents at various institutions profiled indicated that there exists a growing interest in addressing the need to better integrate S&TFD into both the PRSPs and Country Assistance Strategies (CAS). Attention to this area appears to be mounting.

The study conducted by NYU and COHRED, while building on the substantial work about health and PRSPs that has already been done, specifically examines health research in the PRSPs. In particular, the added value of this research comes from its focus on the role that health research plays and can play as a poverty reduction tool within the PRSP framework. As noted earlier, this analysis aims to evaluate how health research is currently included through an examination of health and budget priorities, inclusion of research as a strategy, and discussion of health research in the papers. From this review, in conjunction with interviews with experts in the fields of health, poverty reduction, and health research, the paper proposes several policy recommendations related to opportunities for health research to be leveraged as a poverty reduction tool.

**Project Background**

**Poverty and Poverty Reduction Strategy Papers (PRSPs)**

Poverty is a multi-dimensional notion and it refers not only to lack of income and material assets, but also to lack of the access to healthcare and education, and lack of opportunities. It is also closely associated with inequity, insecurity and vulnerability. Over the past fifty years, the world has become richer, in both absolute and relative terms; however, this has been accomplished at the cost of increased inequality. According to the International Labour Organization (ILO), global economic growth is increasingly failing to translate into new and better jobs that lead to a reduction in poverty. The World Bank’s *Voices of the Poor* consultative exercise, as well as other quantitative studies, showed that it is precisely the people who are materially disadvantaged who have to struggle with poor quality and inaccessible health facilities as well as many other factors that further tighten the constraints facing a poor household.

With the introduction of the PRSP process in 1999, the International Monetary Fund (IMF) and the World Bank aimed to better address the problems of low income countries. “Poverty Reduction Strategy Papers (PRSPs) are prepared by governments in low-income countries through a participatory process involving domestic stakeholders and external development partners, including the IMF and the World Bank. A PRSP describes the macroeconomic, structural and social policies and programs that a country will pursue over several years to
promote broad-based growth and reduce poverty, as well as external financing needs and the associated sources of financing." 13

In order to qualify for concessional assistance from the World Bank and IMF under the International Development Association (IDA), the Poverty Reduction and Growth Facility or HIPC Initiative, developing countries must produce a PRSP, or an Interim Poverty Reduction Strategy Paper (I-PRSP). The significance of having a PRSP is extremely high due to the importance placed by bilateral and multilateral donors when making decisions about allocations.

The “PRSP [has] essentially become another new approach for addressing the provision of concessionary assistance to poor countries who must wrestle with the new dynamics, requirements, and conditionality of the new process. The strategy paper, when considered satisfactory, forms the country’s basis for seeking external assistance and debt relief. It is also intended to help stakeholders in a country shape an appropriate framework for aid coordination, aid delivery, and monitoring of program performance.” 14

**Health and Poverty**

Intuitively it is clear that poor health impacts poverty and poverty impacts health status. This is a vicious cycle, where the poor do not have equal access to basic health services, due to the lack of adequate infrastructure or clinics, or due to financial restrictions. As a result of neglecting basic health needs, many suffer from preventable illnesses. Poor health translates into the reduced capacity to earn income, which further complicates the issues of access to basic health services.

It is well documented that people with low income are more likely to contract diseases due to the poor quality of their environments and low level of nourishment. Their bodies have reduced capacity to resist infection as a result of low nutrition. They are also less able to spend the money that may be needed to treat the illness, and they may find it difficult to comply with a complex or time-intensive treatment regimen or even to seek medical attention in the first place. 15 Further, even if they have sufficient income and are adequately nourished, their status will not improve if they are unable to absorb nutrients due to chronic diarrhea or intestinal infection, which are often a result of poor sanitation, hygiene or food storage.

Adequate access to primary health care is lacking in most developing countries. Primary health care is defined as the level of care that should be available to all and is seen as closely linked to preventive, promotive and population health services. 16 Most villages do not have their own clinics, and therefore people must travel many hours just to reach the nearest one. Further, many of the existing rural clinics do not have an adequate supply of medical supplies and medicines for treatment. Even after the long journey, there is no guarantee that medicines are available, perhaps increasing people’s reluctance to seek medical services.

In addition to clinic locations, the demand for health services is very sensitive to the cash prices that are charged. For example, in Ghana, an increase in public sector user fees by 50% has been estimated to reduce demand in public clinics by 6%. 17 In addition to user fees, the level of uncertainty of relating to the payment amounts further deters people from seeking health care. For example, primary health care in Uganda is provided with no fee-for-service by the
government; however, the country is rife with corruption. As a result, the average cost of a health care visit is equivalent to $6.50 in required bribes.\textsuperscript{18}

Compounding financial and access barriers, poor health is exacerbated by the poor choices made relating to health due to limited available information. There is uncertainty in terms of when to visit a doctor. Basic education is lacking in terms of common remedies or causes for many of the day-to-day illnesses.

There have been improvements in global public health; however, they have been unequally distributed across regions, with the burden of disease disproportionately affecting populations that are the poorest. In 1990 it was estimated that of the total global disease burden, 92% is concentrated in low and middle-income countries, even though their populations represent less than 80% of the total world population.\textsuperscript{19}

**Health and Economic Development**

Health matters because it is a crucial asset, particularly for the poor who may not have many others.\textsuperscript{20} The viability of the entire family depends on good health, due to the lack of adequate safety nets. If the primary wage earner is no longer able to work, for any period of time, the nutritional status of the family members will be impacted and increase the possibility that the children’s education will be interrupted in favor of wage earning activities.

Overall public spending in health remains well below recommended levels. The World Health Organization (WHO) recommends minimum health spending per capita in the range of US$ 30-40; however, in the least developed countries, it averages approximately US$ 13 per person per year in total health expenditures, of which government budgetary outlays are just US$ 7.\textsuperscript{21}

“Returns to improvements in health escalate as the population gets larger, income increases, the average health of the population improves, and the population gets closer to the predictable age of the onset of disease.”\textsuperscript{22} That is to say, there is a more significant impact on productivity when an intervention impacts more people. Given the relative density of the population in developing countries, the impact of slightest increase in productivity per person would be substantial.

An analysis of data for 53 countries between 1965 and 1990 found that higher adult survival rates were responsible for about 8 percent of total growth.\textsuperscript{23} A healthier workforce has less absenteeism (either due to own illness or as a caretaker), which improves productivity. Further, with a longer life expectancy, there is more incentive to invest in human and physical capital and to save for the future.
Health Research

Given the important link between health and poverty, health research is essential because it provides data and evidence to inform policy decision that can improve health and reduce poverty. Health research is broadly defined as the “generation of new knowledge using the scientific method to identify and deal with health problems.” It comprises studies on health systems, including capacity, access, cultural impacts, as well as biomedical and technological advances, and epidemiology. The ultimate purpose of health research, therefore, includes: 1) identifying health priorities based on actual need, 2) helping guide and accelerate the application of new knowledge to solving current health problems, 3) spurring innovation in the health sector through the development of new tools and strategies for treatment and prevention and 4) expanding basic knowledge bases and frontiers of health issues.

Health research is an intersection of several disciplines including social research and scientific research. Health research is also part of an integrated hierarchy of data and information that lead to health evidence.

In a world of limited resources, the benefits of health research allow for improved resource allocation to the most effective and targeted areas in need. It is very rare that technologies are developed by the private sector to meet specific challenges in the poor countries (disease for example). The poorest of the poor simply do not provide enough of a market incentive for private-sector-led research and development. It is estimated that out of the US$ 70 billion spent globally on health research and development, only 10% is spent on research relevant to the health problems of the poor which make up 90% of the world’s health problems.

At present, a majority of health research is performed by rich countries, and therefore tends to reflect their own policy agendas, resulting in varying levels of impact on developing countries. For example, research for diseases that are found in both rich and poor countries and have the potential to impact a large number of people, impacts policy in terms of how to combat the illness, since the rich countries have already carried out the R&D. For diseases that are predominantly found in developing countries, but are also prevalent in developed countries, there is research underway, such as a vaccine against HIV; however the R&D efforts are nowhere near commensurate with the global needs because such disease are predominantly located in poor countries. Lastly, very little research is undertaken to address diseases only found in poor countries since their incidence is limited to developing countries that have restricted access to capital and research capacity.
“Despite the revolutionary gains in health status achieved on average during the 20th century, health outcomes have varied significantly across countries. Today, most developing countries share a disproportionate burden of avoidable mortality and disability problems, primarily attributable to preventable infectious diseases, malnutrition, and complications of childbirth. Furthermore, persistent health problems largely affect populations that are poorest. Overall, the poor not only have shorter lives than the rich, a bigger part of their lifetime is affected by disabilities.”

II. Methodology

This analysis was carried out in two separate phases by a four member team. The first stage was a desk review of all outstanding PRSPs and the second stage consisted of an extensive literature review and a series of interviews with field experts. The findings of these two phases have been synthesized within the results highlighted in this paper.

Stage One was designed to determine whether the PRSPs address health research as a tool for reducing poverty. All countries with a complete PRSP, as of October 2005, were included in the evaluation, for a total of 49 countries (See Annex I). A desk review of the PRSPs was done using an evaluation tool designed with questions relating to budget, inequity, health, research, and monitoring and evaluation. All PRSPs were evaluated on the same 17 Yes/No questions (See Annex II) that covered topics in addition to health research, providing a comprehensive picture of poverty, health, and health research within the PRSPs. In the question of funding for health, various entities were identified, including bilateral and multilateral organizations, non-governmental organizations, and the local private sector. A question that indirectly highlighted the importance of the health sector looked at the links made between health and other sectors, such as sanitation, water, education, nutrition, telecommunication, tourism, infrastructure and internally displaced persons. Word searches were performed on each PRSP document using keywords selected to correspond to each question, although substantive document review was often required to fully address the research questions. Additionally, several documents were not searchable in an automated format and therefore required an extensive manual review to determine the elements included in the PRSP.

In order to strengthen the consistency of the evaluation process, an initial pilot study of 12 PRSPs was conducted. This allowed the evaluation tool to be assessed for its ability to produce answers to the questions being investigated and to develop a system for providing additional information within the tool to supplement the Yes/No responses. To verify consistency among responses, all group members independently reviewed the same PRSP (Yemen) in order to calibrate the quality and format of the responses. The process of comparing responses allowed for further fine-tuning of the evaluation tool and ensured that the response to questions would be consistent for all reviews. The PRSPs were divided equally amongst 4 team members, with each reviewing 12 documents individually and all 4 reviewing 1 PRSP. Even though team members’ responses were calibrated, there may be some variation in how the PRSPs were reviewed, but the division was necessary given the time limitations of the project.
An initial coding system was assigned for 5 of the 17 questions (See Annex III) in order to allow for more detailed classification of evaluation results. The system was devised to reflect the language of the PRSPs and attempted to highlight data important to this research study. A second coding of health priorities was done using a coding system based on WHO research (See Annex IV) to further supplement the initial coding. While many of the categories overlapped, this re-coding was done to ensure greater consistency with existing research on the subject of health and PRSPs. A final recoding was done for types of health research to better reflect the classifications of health research used by COHRED (See Annex V). Responses to all questions were collected in an evaluation grid for all 49 countries and answers to questions tallied to determine general trends (See Annex VI).

One of key tasks during the project was to a definition of health research. Health research has a broad conceptualization and its various aspects are not distinct and, in fact, best integrated to maximize impact. For the purposes of this study, health research was divided into three distinct categories: direct interventions, essential evidence and monitoring and evaluation (See Figure 4). The distinction was based on the information available within the PRSPs and a desire to further delineate with the broad concept of health research.

Stage Two began with an extensive literature review. Documents relating to health research, health, and poverty reduction strategies were reviewed for background information, analyses to guide further research, and to find further sources of information. The literature review was also conducted to ensure originality of research and to take advantage of the existing wealth of knowledge. The review covered a wide span, ranging from scholarly journals such as The Lancet, Finance & Development, and Canadian Medical Association Journal (CMAJ), to reports published by the WHO, World Bank, and other significant organizations, as well as publications addressing the crucial issues of health research and poverty.

PRSP, health, and health research experts were interviewed to gain insight into the role of health research within the PRSPs and their thoughts on whether the PRSPs are a mechanism that can be used to strengthen health research policies within developing countries. Individuals from the World Bank, the International Monetary Fund, the World Health Organization, New York University, Johns Hopkins University, the Gates Foundation, the Lasker Foundation, the Wellcome Trust, the Fogarty International Center and the United Kingdom Department for International Development (DFID) were contacted via email to be interviewed (See Annex VII). Of 28 inquiries sent, 18 responded and 10 agreed to be interviewed (See Annex VIII). Individuals were interviewed from the World Bank, the International Monetary Fund, the World

<table>
<thead>
<tr>
<th>Types of Health Research</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring &amp; Evaluation</td>
<td>Routine Monitoring</td>
</tr>
<tr>
<td>Essential Evidence for Policy Decision-Makers</td>
<td>Health information systems, Epidemiology, Surveillance</td>
</tr>
<tr>
<td>Direct Interventions: Targeted Research</td>
<td>Anatomy, cytology, physiology, genetics, pharmacy, pharmacology, clinical chemistry, clinical microbiology, pathology, biomedicine &amp; other basic science directly applied to health.</td>
</tr>
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**Figure 4: Types of Health Research**
Health Organization, New York University, Johns Hopkins University, and the Lasker Foundation (See Annex IX) from March 18, 2006 – April 10, 2006. Prior to interviews, individuals were sent copies of the interview questions and a background document that detailed the purpose of the study and key findings from Stage One (See Annex X). All interviews were conducted in person or via telephone using the same interview schedule (See Annex XI) with questions based on findings from the Stage One review of PRSPs. Each interview was conducted by two team members and was audio recorded.

The interviews sought to answer the following questions:
1. What are the primary objectives of the PRSPs?
2. Is there a general understanding that Health Research is a valid poverty alleviation tool?
3. What is the role of evidence in poverty reduction strategies?
4. What role can the PRSP mechanism play to help build national systems able to generate and analyze evidence?
5. What steps are necessary in order to have the issue of health evidence systems built into PRSPs?

Using the data generated from Stage One—particularly the broad numbers of positive and negative responses to questions about health research—and the responses from interviews regarding the above questions, conclusions were produced. For example, in addressing the question of whether health research is understood as a valid strategy, two factors were taken into account: 1) the degree to which the PRSPs embraced health research as a tool for poverty reduction and 2) the respondents’ answers to the question.

The project experienced several limitations that shaped the research. It faced a time restraint that required the team to divide the PRSPs in 4 ways, rather than in a way that allowed for greater validation of results. However, as noted above, several efforts were made to ensure that responses were consistent with one another. The time restraint also shaped the way in which the final product was created—focusing on PRSPs as a whole, rather than looking at individual cases to generate best practices. Nonetheless, due to the PRSP framework’s macro-level focus, such a scheme may be more applicable to the mechanism. Due to the subject and the need for a desk review of the PRSPs, several of the questions being investigated required making a subjective decision, chiefly when determining whether the PRSP included certain aspects. However, this was addressed as necessary through validation of responses as a research team. On particularly subjective questions, a review was done by the team of all responses to ensure agreement. Any potential subjectivity in the interview process was eliminated by using the same questions for each interview and by taping all interviews which allowed for verification of responses.

**III Results: PRSP Review**

Based on the review of all outstanding PRSPs, questions were investigated regarding the links between health and poverty and the links between health and research. In particular, the importance of the health sector and health research for poverty reduction was examined through inquiries about funding, inequity, health, health research, and monitoring and evaluation.
**Health in the PRSPs**

Based on the review, questions were investigated regarding the links between health and poverty and the links between health and research. In particular, the importance of the health sector and health research for poverty reduction was examined through inquiries about funding, inequity, health, health research, and monitoring and evaluation.

**Health: Budget and Funding**

A majority of PRSPs include information about the budget for the health sector. Only 6 countries do not include such information—Albania, Chad, Ethiopia, Guinea, Kenya, and Rwanda. However, while concrete information is lacking, Chad does make note of a budget category for health and social affairs, Guinea related the amount of HIPC funding it spent on health in 2001, and Kenya's human resource development expenditure of 41.92% of total costs of the economic recovery strategy includes funding for health and HIV/AIDS.

The review found that 31 countries identify health spending as a percentage of GDP (See Figure 5), while 18 do not specifically address spending in terms of GDP. For those countries that do identify health spending, historical allocations to the health sector range from 0.6% of GDP (Pakistan) to 16.5% of GDP (Bolivia). Half of the PRSPs reported health spending of less than 5.5% of GDP, which is significantly below the WHO recommended allocation of 10%.

**Figure 5: State Budget for Health as % GDP**

Bangladesh notes expenditures of US$ 5 per person on essential health interventions, while Bolivia's per capita expenditure in 1995 was US$ 8. Both fall significantly below the international recommendations of US$ 30-40 per capita on health spending.

Eleven (11) countries (22%) detailed health funding as a percentage of total government expenditure ranging from 4% (Yemen) to 13% (São Tomé and Príncipe). Mongolia recorded an increase in the percentage of the health budget from 10.6% (1996) to 12.1% (2001), as did Madagascar, which had an increase from (3.4% in 1995 to 6.7% in 2001.
A majority of PRSPs identify various funding sources for the health sector (See Figure 6). Sources include the national government, World Bank and IMF, NGOs, bilateral organizations or other donors, and the local private sector, which includes local industry and insurance schemes. The most commonly identified source of funding for the health sector is the government, although NGOs, bilateral organizations, and other donors also are highlighted as common funders. Only 12 countries (24%) indicate that the local private sector contributes to health funding and surprisingly, just 23 countries (47%) explicitly identify funding from the World Bank and IMF in the health sector. 23 countries (47%) indicate that the burden of paying for health care is shared by the local population in out of pocket fees for service.

38 countries (78%) project a change in their health budget, of which 35 or 71% indicate an increase, thus indicating recognition of the importance of the health sector for poverty reduction. However, 3 countries (6%) estimate a decrease in the health budget: Bosnia-Herzegovina, Burkina Faso, and Cape Verde. Bosnia-Herzegovina's PRSP outlines a decrease in health sector spending from 6.4% of GDP (2002) to 5.9% of GDP (2006). Cape Verde and Burkina Faso provide few details of the anticipated decrease, but both indicate a decrease over a three year time period.

**Health: Link to Poverty and Inequity**

1. **Poverty**

All 49 PRSPs clearly address poverty as a multi-dimensional, multi-sectoral problem. However, the analysis and definition of poverty varies substantially, with some PRSPs providing a much deeper examination. All countries indicate a link between poverty and health, but this is demonstrated in a variety of ways across the PRSPs. Bangladesh identifies poor health as an element of poverty;” while Cambodia's PRSP describes the link as a "cycle of poverty, ill health, and high health care expenditure by households [that] economically cripples families. Mozambique identified the importance of health for growth: “The health sector contributes directly and in the short-term to improving the welfare of the population, while also playing a role in the redistribution of income and wealth.” Several countries included health indicators,
such as child mortality and malnutrition, in descriptions and monitoring of poverty. Rwanda and Armenia, for example, use the outcomes of health indicators to monitor poverty reduction.\(^{33}\)

Importantly, several PRSPs indicate that the link between poverty and health was made because the issues were clearly connected in consultations held while preparing the PRSP and the connection became further evident through the participatory processes that engaged the population. Lack of access to primary health care is noted as a contributor to poverty by poor people in Benin, for example.\(^{34}\) Yemen highlights that poor men and women unanimously agreed that the most important effects of poverty included illness and the inability to meet the cost of treatment.\(^{35}\)

2. Health inequity

Inequity is seen as a major obstacle for growth and poverty reduction, as well as a chief cause of wasted human potential and missed development opportunities. In order to break the cycle of inequity, the disparity of health status among the population, particularly the inadequate health status of the poor must be reduced and eventually eliminated.

Inequity in health status is noted as a result of several factors including lack of qualified medical personnel, lack of adequate health clinics and lack of available medicines. There is also a difference in knowledge base, such as what constitutes proper nutrition or hygiene, or when it is appropriate to seek medical attention. Inequities are noted among different income levels, genders and location (urban versus rural areas).

Health inequity is documented as a problem by every country except Bhutan and Ethiopia. According to the Household Budget Survey conducted in Moldova, “only 44.1% of the population has adequate access to medical services, with 40.0% having limited access, and 15.1% having no access whatsoever.”\(^{36}\) Health inequity is further described by countries as the state of being more susceptible to "diseases like communicable diseases, acute respiratory diseases, [and] diarrhea"\(^{37}\) and often includes an acknowledgement of the need to decrease the inequality. This recognition of the need for immediate solution is notable in Bosnia-Herzegovina's PRSP which declares that "health care reform should contribute to reducing inequity in the sector."\(^{38}\) Bolivia’s National Dialogue 2000 established that health status is one of the most important aspects in building the population’s capacities.\(^{39}\)

According to the PRSPs, inequity in health is mainly an issue of access to care. Nicaragua's PRSP, for example, highlights that "on average, the extremely poor must travel three times the distance, and spend three times as much time, to reach health facilities as non-poor households."\(^{40}\) Other countries focus on improving access by increasing the currently insufficient number of properly trained personnel, dilapidated facilities, and inadequate supplies of basic medicines.\(^{41}\) The relationship between corruption and health inequity, and how it impacts health care accessibility is raised in numerous PRSPs. In particular, it is demonstrated by the inability of the poor to pay for services or bribes to receive proper care.\(^{42}\)

The issue of access and parity of services extended from issues of wealth to issues of geographic region. Gaps in health have wide geographical disparities, and differ between provinces and
Notably, Cameroon concretely expresses the impact improved health can have on economic growth, stating that "estimates show that a 5% increase in expenditure on health will lead to a one-fifth of one% net increase in GDP growth over the medium term between urban and rural areas." Yemen exemplifies this dynamic: "low coverage and poor quality of health services also reflect the lack of equity in its distribution between the different governorates and between the poor and the rich as well."

Health inequity was discussed in terms of gender inequality by several countries. Cambodia’s PRSP held that “[w]omen always face higher risk to ill health...,” while Djibouti acknowledged that a number of health issues impact women. However, though women were mentioned, the issue of gender is addressed in-depth and/or mainstreamed in few PRSPs. Merely mentioning maternal or reproductive health as a priority only superficially addresses the health needs of women; the larger socio-economic factors must also be addressed in order to truly have an impact on women’s health.

**Health: Link to Economic Growth**

The majority of the reports lack comprehensive links between poverty and ill-health; however, 35 (71%) countries demonstrate some recognition of the relationship of ill-health and economic production, stating that improving health contributes to economic growth. Foremost, improving health is highlighted for increasing productivity. Lao P.D.R, Guyana, and Malawi all make this argument noting that a healthy nation leads to increased productivity. Malawi underscores the importance of both health and education for economic development and equity. A “healthy and educated nation leads to increased productivity, better income distribution and a generally improved standard of living.”

Lesotho emphasizes the impact of HIV/AIDS on the economic growth saying that “HIV/AIDS reduce[s] economic growth and increase[s] levels of poverty and income disparities.” For Bosnia-Herzegovina, the relationship between economic development and health can be described using two terms: “the economy of health” and “the health of the economy.” The health sector is also tapped for its fundamental role in contributing to economic growth through development of human resources and human capital by Mozambique and Mongolia, among others.

**Health: Link to Other Sectors**

Many PRSPs highlight a connection between health and other sectors (See Figure 7). Forty-seven countries clearly make such a connection, Bhutan and Honduras being the 2 exceptions. Sanitation and water are the sectors most closely linked to improving health in the PRSPs reviewed. About half of the countries reviewed (25) explicitly highlight the importance of sanitation for the health sector and 23 countries note the importance of access to clean, safe water. Several mention the direct effect of collaboration across sectors for health improvement and promotion.
Health and education are often grouped under the same umbrella, often called human development. This occurs in the PRSPs—the health budget frequently grouped with the education budget—and 18 countries (37%) explicitly connect the two sectors as important to one another. The link between education and health range from needing "public education in basic health practices" to "an urgent need to... [boost] the literacy rate for women" for greater participation and increased access to healthcare. Education is often mentioned as important for development of research, particularly at the university level, highlighting the interconnectedness of education and health with implications for health research.

Although improving infrastructure is frequently expressed as a priority for the health sector, only 15 PRSPs (31%) highlight the relationship between infrastructure and health. Vietnam directly ties investment in infrastructure to improving health for more sustainable development. This "investment includes building new hospitals and upgrading modern equipment; investment in ...hospitals will allow communities to gain more access to basic health care." Such investments will help improve living conditions, enhancing chances of sustainable growth. Burkina Faso addresses the importance of improved health infrastructure in tandem with improving road infrastructure to increase access to services like schools, healthcare facilities, and markets.

Bangladesh notes the importance of telecommunications for health, particularly in regard to the "means for public service delivery to the poor and poor areas" using tele-medicine. Cameroon also links health to communication to improve access to information regarding health. In total, 8 countries demonstrate a connection between the health sector and the communications sector.

Other areas linked to the health sector included tourism, internally displaced persons and land mines. Georgia, Tajikistan, Zambia and Sao Tome and Principe discuss the role of health as important for the field of tourism. In post-conflict countries, Azerbaijan and Cambodia for example, a link is made between health and the sections on internally displaced persons and contamination of different territories by mines and unexploded ordnance.

The variety and number of sectors linked to the health sector by all but 2 PRSPs highlights the importance of health for development across the country and the importance of other sectors for improving health. Uganda clearly delineated this relationship, stating, that its poverty reduction "strategy reflects the understanding that health outcomes are not the sole responsibility of the health sector."
Health: Priorities and Pro-Poor Interventions

All 49 countries indicate health priorities as a part of their poverty reduction strategy and for each, basic health care and access to services are among the priorities (See Figure 8). Over 90% of the countries also prioritize the following areas: developing human resources and capacity for the health sector, HIV/AIDS and malaria, childhood and prenatal diseases, and maternal and reproductive health. Tuberculosis, health policy and management, and nutrition are priorities in over 80% of PRSPs. Interestingly, Bolivia, Ethiopia, and Sri Lanka are the only three countries who do not prioritize HIV/AIDS in their PRSPs.

The emphasis on improved access to health services is an important indicator that countries have a pro-poor focus with their health priorities. Armenia’s “main objectives for the health sector are to update the quality of and enhance the access to health services, particularly for the poor.”

Cambodia’s Health Policy Statement 2003-2007 “seeks to provide high quality, evidence-based health services... that are pro-poor,” while Ghana’s priority areas focus on access to health and health-related causes of poverty. Kenya, Lao P.D.R., and Serbia and Montenegro, among others, also prioritize health sector reforms that targeted the needs of poor and vulnerable groups.

Poverty: Means of Assessment

PRSPs “draw on a range of data calculate levels of poverty including the poverty line, consumption levels, Unsatisfied Basic Needs indicators, Poverty Head Count Index, and the Human Development Index (HDI).” All but one of the countries mention the type of processes used for preparation of their PRSPs; Ethiopia is the only country that did not explicitly include details of any qualitative or participatory poverty assessments. Only 10 countries explicitly mention health in its assessments of poverty: Azerbaijan, Burkina Faso, Cambodia, Chad, Moldova, Mozambique, Nicaragua, Rwanda, and Uganda. Chad highlights its Demography and Health Survey conducted in 1997 as a source of information and assessment, while Azerbaijan notes a Multiple Indicator Cluster Survey conducted to examine the links...
between income, poverty, health, and education. However, such detail is not seen in most documents.

**Health Research in PRSPs**

**Health Research: Types Identified**

The references to health research within the PRSPs vary greatly. Some countries directly mention the importance of health research to develop new interventions and improve systems and services, whereas other countries refer more generally to health research as a means to inform policy and to serve as a monitoring and evaluation tool for the implementation of health systems and programs. Three types of health research were identified—monitoring and evaluation; routine health information, surveillance, and epidemiology targeted at policy decision-making; and targeted research.

A total of 84% (41) of the PRSPs address health research while 8 countries include little or no reference to health research. These 8 countries are Albania, Armenia, Honduras, Kenya, Nepal, Senegal, Sri Lanka and Tanzania. Seventy-eight percent (38/49) address monitoring and evaluation for the health systems, while 73% (36/49) include surveillance and epidemiology. Only 33% (16/49) address targeted health research interventions (See Figure 9). Only eight countries reference all three types of health research: Bangladesh, Benin, Cameroon, Guyana, Lao P.D.R, Madagascar, Mozambique, and Vietnam.

Countries also address other types of research, typically research for education, agriculture, nutrition, and food security. Additionally, operational and applied research and scientific research are mentioned by several countries. Often, countries address research generally without any specifications.

1. **Direct Interventions: Targeted Research**

Sixteen PRSPs discuss direct applications of health research to develop new interventions and improve systems and services (See Figure 10). Such references are often vague, like Bangladesh’s identification of “the use of biotechnology for the poor” as one of its strategic goals. Benin mentions the need to “promote biomedical research on STI/HIV/AIDS” in
Lao PDR and Mozambique both discuss how knowledge of traditional medicine can be translated to health research. Lao PDR states “research should be done into expanding the use of traditional medicine.” Similarly, Mozambique recommends that integration of “traditional medicine into the national health system raises the possibility for medical research, pharmaceutical research.” Madagascar is one of few countries that explicitly refers to health research actions to affect direct interventions. As part of actions to improve child and maternal health, Madagascar will perform “operational research on new vaccines in collaboration with the Pasteur Institute.”

<table>
<thead>
<tr>
<th>Country</th>
<th>Targeted Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Target “Alternative Medical Care” to develop medical research</td>
</tr>
<tr>
<td>Benin</td>
<td>Promote biomedical research on sexually-transmitted infections and HIV/AIDS.</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Conduct operational research for priority health issues and establish a national laboratory with the technical capacity do a wide range of scientific research related to health.</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Enhance operational research for reproductive health and other diseases, particularly in the fight against AIDS and develop pharmaceutical research</td>
</tr>
<tr>
<td>Georgia</td>
<td>In addition to biotechnology efforts, plan to cooperate with pharmaceutical companies to provide research to send affordable, essential drugs in developing countries</td>
</tr>
<tr>
<td>Guyana</td>
<td>Invest in chemotherapy and AIDS drugs research</td>
</tr>
<tr>
<td>Lao P.D.R</td>
<td>Plan to invest in pharmaceutical research so that 50% of essential drugs can be produced locally and plan to collaborate with The Global Fund for HIV/AIDS, Tuberculosis and Malaria</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Conduct operational research on new vaccines in collaboration with the Pasteur Institute.</td>
</tr>
<tr>
<td>Moldova</td>
<td>Place emphasis on increasing allowances for scientific research and information to meet the objectives and priorities for the MDGs and other diseases</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Improve and enforce legislation that for supervision of health, border health, epidemiology, pharmaceuticals, and medical treatment</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Integrate traditional medicine to develop medical and pharmaceutical research</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Primary health care will be combined with family planning methods, basic and emergency obstetric care, improved nutritional services for expectant mothers, more and better prenatal care, more institutional births, and better treatment for common childhood illnesses</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Plan to develop research targeting HIV/AIDS and projects about the medical applications of local biodiversity</td>
</tr>
<tr>
<td>Serbia &amp; Montenegro</td>
<td>In order to achieve better quality health protection, the project of technological health sector research will also be developed.</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Plan to address rehabilitation of invalids with a research institute which will include prevention and early diagnostics in to-be created especially equipped research bases.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Invest in pharmaceutical and antibiotic research</td>
</tr>
</tbody>
</table>

Figure 10: Targeted Interventions Identified

2. Routine Health Information, Surveillance, and Epidemiology: Targeted Policy Decision-Making

Essential evidence for health information systems is an “integrated effort to collect, process, report and use health information and knowledge to influence policy-making, program action and research.” Countries are more likely to identify indirect links between health research and
poverty reduction, specifically as a means of informing policy decisions, as evidenced in 73% of the PRSPs. Health research as a means to inform policy decisions is primarily referenced via two mechanisms: epidemiological studies and identifying the poor and their health needs. Bolivia cites “strengthening the health epidemiological surveillance system” as a priority. Bosnia-Herzegovina stresses the need for reviewing and defining health care data: “appropriate data collection methods for implementation should be developed, and the required skills to analyze and interpret the data must be developed for transforming such data into information to be disseminated as reports to all potential users in the health care system.”

Bolivia cites “strengthening the health epidemiological surveillance system” as a priority. Bosnia-Herzegovina stresses the need for reviewing and defining health care data: “appropriate data collection methods for implementation should be developed, and the required skills to analyze and interpret the data must be developed for transforming such data into information to be disseminated as reports to all potential users in the health care system.”

Burkina Faso says that “forward-looking studies must be conducted to identify and analyze the determinant of healthcare demand and will be used to define new strategies to improve health care.” Cambodia makes a direct link between health research and policy implementation in wanting to establish a nutrition information system that will “give an idea of trends and support development of policy.” In order to do so, Cambodia needs to “strengthen the research capacity of an existing Cambodian academic institution and the Ministry of Health and identify and conduct operational research studies.” Bangladesh recognizes that in order to do a poverty diagnosis for health, it needs “a critical appraisal of the current data and information systems to support pro-poor health planning.” Likewise, Mauritania cites the need to “develop community surveillance and health interventions to combat malaria, children's diseases, and malnutrition.”

The need for epidemiological research is reiterated as critical to combating the spread of AIDS/HIV and STDs. Lao P.D.R (Laos) states that it needs to “strengthen surveillance and research to prevent STDs.” More generally, Rwanda says it must “develop research” as one of the areas of intervention for combating AIDS/HIV. Similarly, Timor Leste’s strategies for achieving its health objectives include disease surveillance and the development of a system of timely detection and control of epidemics and disease outbreaks.

3. Monitoring and Evaluation

Monitoring and evaluation (M&E), in terms of health research, is included in 78% (38) PRSPs. The PRSPs contain a broad range of monitoring and evaluation systems for implementing and overseeing health programs. At one end of the spectrum is Lao, which includes only a few sentences regarding monitoring and evaluation such as “regular supervision and monitoring of the health service network.” The Gambia recommends “timely availability of information for planning, implementation, monitoring, and evaluation of health services.” Ghana includes “strengthening of monitoring and evaluation of health services” as an action to improve efficiency in health care. Bangladesh recognizes that in order to do a poverty diagnosis for health, it needs “a critical appraisal of the current data and information systems to support pro-poor health planning and the subsequent monitoring and evaluation of poverty reduction activities and outcomes.” The use of indicators, such as those in the MDGs, to measure health improvements is apparent in Timor-Leste, which lists thirteen performance indicators for health.
Thirteen PRSPs elaborate in detail on monitoring and evaluation mechanisms in entire sections, with specifics on health. Ethiopia exemplifies this group as it outlines a general plan of monitoring and evaluation and includes a matrix of indicators on four levels—current status, MDGS, intermediate/outcome indicators and indicator targets—with eight referencing health. Several countries—Georgia, Kenya, Nicaragua, Mongolia, Moldova and Tanzania—have excellent sections on monitoring and evaluation without very specific references to health.

Georgia’s PRSP succinctly captures the purpose of M&E: “feedback between the monitoring and evaluation system and decision-making process” and realizes the need to define specific research needs. Likewise, The Gambia highlights the importance of monitoring and evaluation as “essential in the pursuit of policy, program and project effectiveness ensuring accountability, responsiveness and transparency in the allocation of resources.” Even though The Gambia government recognizes the importance of a monitoring system as an instrument for policy makers to measure the effects of policies on poverty, the National Poverty Monitoring System, has never been fully operational since its inception in 1997. Countries reiterate the capacity gap for effectively utilizing M&E systems. Cape Verde is well aware that “monitoring and evaluating the PRS is a complex and difficult exercise” complicated by “inadequate statistic coverage and coordination.” Cameroon acknowledges the capacity gap, envisaging “organizing targeted surveys in special areas for which information is lacking or which have not been explored such as the environment, HIV/AIDS, vulnerable groups.”

Overall, PRSPs refer to monitoring and evaluation in general terms, identifying assessments for the poverty reduction strategy as a whole, but not making direct statements about the assessments being done for health and health research. Monitoring and evaluation can be linked to resource allocation. As Bolivia’s PRSP states making “provision for measures involving the allocation of resources that will have a medium- and longer-term impact on poverty” requires that “the effectiveness of such actions be guaranteed through implementation of a monitoring system that uses indicators and goals that will make it possible to measure the progress of the strategy as well as indicators for evaluating impact and results.” Thus monitoring and evaluation serves an important function in measuring the effectiveness of allocating resources, which are often scarce.

**Health Research: Capacity**

Thirty-seven countries address capacity and infrastructure for health research, to varying degrees (See Figure 11). 24 countries discussed capacity and infrastructure in general terms, while 9 countries both addressed capacity & infrastructure problems and provided recommendations on what needed to be done. Only 4 countries offered solutions for the capacity and infrastructure problems in health research. These countries were Guyana, Lao P.D.R, Mozambique, and Tajikistan. Twelve countries did not address capacity and infrastructure of health research at all.
1. Capacity Generally Addressed

Forty-nine percent (24) of the countries generally address the capacity for health research as existing inadequacies of the health systems and lack of capacity but do not give recommendations or solutions. The overall inadequacies of the health system directly impact health research infrastructure and capabilities. Countries cite similar capacity gaps in lacking adequate facilities, personnel, drugs, and funding. Cape Verde well summarizes the gap as “insufficiency of human, technical and financial resources to respond to the needs of the neediest populations.” Countries often list several inter-related capacity gaps. Benin has a “lack of and poor distribution of qualified personnel” and “poor management of pharmaceuticals and lack of infrastructure and facilities.” Bangladesh cites a “lack of adequate diagnostic facility and lack of maintenance” of physical structures. Djibouti mentions “poor availability of drugs, inadequate funding of the health sector and weak community and consumer participation in the management of the system.”

Countries emerging from internal conflict and warfare have acute capacity gaps. Rwanda states that “science and technology teaching and research are important public goods but have for a long time have not been emphasized enough due to poor teaching and under-funded research.” In Sierra Leone, death and migration of trained health staff, combined with insecurity and unaffordable costs of medical services drastically reduced accessibility to primary health care services. Sierra Leone’s health sector is plagued with a shortage of qualified health personnel, inadequate and unaffordable drugs and other essential medical supplies, and inequitable distribution of health facilities.

Health systems and capacity for health research are often old and outdated. Guinea states that its health “infrastructures and equipment are old and worn out” and that currently “there is no research and technology policy that can make an effective contribution to social and economic development.” Yemen’s health system dates back to the 1970s and is based on a traditional system for provision of health services, including health units, centres and hospitals. Yemen recognizes the shortcomings of its antiquated health sector, citing poor service provision and low expenditures on maintenance and operation, but does not offer many recommendations for addressing the problems.

2. Capacity Addressed with Recommendations

Moving beyond simply addressing the problem, 18% (9/49) of the countries offer recommendations for changing the capacity and infrastructure for health research. These countries state what is needed to close the gap between current capacity and adequate systems. Burkina Faso recognized the technical limitations of its healthcare facilities and wants to build
the institutional capacities of its Ministry of Health. Several countries recognize the need for improvements and investments in the health sector, particularly in building new hospitals, upgrading equipment, personnel training and overall infrastructure. Vietnam makes the link to how these improvements relate to health research: "In scientific research and development, good technical infrastructure will make researchers more successful in inventing and applying new technologies to production."

Moldova places an emphasis on “increasing allowances for scientific research and information.” Kenya’s Ministry of Planning & National Development will establish a medium-term schedule for the implementation of its research agenda to support research activities in key policy areas, including health. Cambodia plans to “strengthen research capacity of an existing Cambodian academic institution and the Ministry of Health and identify and conduct operational research studies for priority issues.”

3. Capacity Addressed with Solutions

8% (4/49) countries gave solutions for how to close the capacity and infrastructure gap for health research: Guyana, Lao P.D.R, Mozambique, and Tajikistan. Guyana recognizes that “systems for data collection, collation and analysis are poor throughout Government agencies and ministries, in particular, in the social sector ministries.” To make improvements requires “coordinated efforts by Government and donors and assessing baseline data, fully understanding the constraints, and providing resources to build capacity at the national, regional and community levels.”

Guyana also has plans to develop a comprehensive maintenance program of physical facilities. Lao PDR (Laos) recognizes that health facilities and medical equipment are lacking and substandard and health workers do not speak the language of the patients. As such, Laos identifies an overarching goal for health as having basic health services respond to people’s needs and expectations. To achieve this and develop capacity and infrastructure for health research, Laos is determined to make special efforts to increase the “capacity of health personnel at the district and village levels parallel with the provision of essential drugs and necessary medical equipment to the district hospital, the HC, and the drug revolving funds at the village level.”

Like Guyana, Laos states that improved surveillance is critical to disease control and response and sets a target for 2005—“a nation wide system whereby disease detection is more assured, allowing time for preventive measures.” In addition, the government of Laos lays out major activities for health system development, during the 2003-2005 time period, that relate to health research capacity, while displaying recognition of the importance of using evidence in decision-making by highlighting the need to create policy based on “lessons learned from current and previous programs.”

When addressing the gaps in health system capacity and infrastructure, Laos makes a clear connection between finding solutions and traditional medicine. In this vein, the PRSP includes the need for “co-operation with other countries such as Vietnam, China, Japan, USA, and Korea to develop traditional medicines for local production and export; development of the law for the protection and management of medicinal plants; promotion of traditional medicine for local consumption and research into expanding the use.”

Mozambique underscores the importance of improving planning and management of the health sector.” For the planning and management of the health sector, Mozambique lays out a plan, that includes annual increases for provincial health budgets, to "develop an integrated health information system consisting of: 1) health information system for levels 1 and 2; 2) information for levels 3 and 4; 3) epidemiology for epidemics and serious endemics (malaria, etc); 4) priority
The countries that identified research as a priority for the health sector are: Azerbaijan, Bolivia, Burkina Faso, Cambodia, Cape Verde, Kyrgyzstan, Moldova, Mongolia, Nicaragua, Pakistan, Serbia & Montenegro, Tajikistan, Uganda, and Yemen.

programs (STDs/HIV/AIDS, ELAL and ELAT (leprosy and TB control); 5) human resources; 6) pharmaceuticals; 7) infrastructure; 8) financial and administrative aspects, including maintenance, transport, and supplies; and 9) surveys."108 Similarly, Tajikistan provides a long list of solutions to overcoming its capacity gaps: “create a new structure for the pharmaceutical sector, improve human resource potential, use manufacturing capacity of existing chemist’s shops effectively, improve the system of medicine supply and local provision of pharmaceutical raw materials, and repair and rehabilitate buildings.”109 Tajikistan also displays a belief in the importance of an evidence-based approach to the development of the health system with decision-making tied to existing knowledge and new developments in the health field. “Based on experience of health systems elsewhere, the Government will reform primary medical service… Taking into account the developments in medical science, standard schemes of diagnostics and treatment of main problematic diseases that are applied in developed countries and medical establishments will be introduced.”110 The importance of internal epidemiological studies for capacity development is also highlighted as a solution for health research capacity problems: “The Government considers it necessary to introduce a common international classification of diseases… and establish a computerized data collection system in all medical establishments in the country. (p.41)

The commonality amongst these countries is to engage proactive solutions to combat the capacity gap for health research.

**Health Research: Matched to Identified Health Priorities**

41 countries refer to health research. Of these, a connection between the stated health priorities and health research objectives is evident in 19 PRSPs. These countries are: Bangladesh, Benin, Burkina Faso, Cambodia, Cameroon, Cape Verde, Ethiopia, The Gambia, Ghana, Guyana, Kyrgyzstan, Lao P.D.R., Madagascar, Mauritania, Moldova, Mozambique, Nicaragua, Tajikistan, Timor-Leste, and Vietnam. In all these cases, the stated health research objectives are related to the majority of the stated health priorities in the PRSP. Notably, the 8 countries that address all three types of health research appear to match their health research objective to their stated health priorities.

For instance, Benin’s priorities in the health sector are to improve quality and accessibility of health care services, improve care for poor and indigent populations, and prevention and control of priority diseases. To match these priorities, its health research objectives include conducting technical studies to identify poorest groups, developing its pharmaceutical and traditional medicine sectors and organizing epidemiologic surveillance and promoting biomedical research on STI/HIV/AIDS. Cameroon prioritizes the following health areas: contagious diseases, HIV/AIDS, maternal and child health, malaria control, essential drugs, non-communicable, and to increase infrastructure capacity and strengthening of equipment, and develop human resources, structural reforms. Their health research objectives dovetail with these health priorities, as they include: developing pharmaceutical research, enhancing operational research in
reproductive health and other diseases, improving the health information system for program management, developing an operational epidemiological surveillance system for non-communicable diseases, and expanding research for AIDS campaign.

In Nicaragua’s PRSP, the stated health priorities are to increase coverage and quality of services for women, children, and adolescents, as well as promotion of behavioral changes at the household level, rehabilitated health centers in rural areas with the highest levels of maternal and infant mortality rates and illnesses, and expanded provision of vaccines and other similar medication. These health priorities are matched with the following health research aims: investing in epidemiological monitoring systems for decision-making by communities and authorities, and preventing and controlling epidemics through monitoring, control, basic sanitation and epidemiological investigation.

Health Research: A Strategy to Reduce Ill-Health

Even though 84% (41) of the countries address health research in their PRSPs, only 29% (14) countries directly state that health research contributes to the reduction of ill-health. Madagascar identifies health research as an important mechanism “to combat endemic diseases set up a system of epidemiological surveillance.”111 Both Cambodia and Rwanda underscore the effectiveness of coupling health research with academic institutions in order to reduce ill-health. Particularly, Cambodia indicates necessity of strengthening “research capacity of existing Cambodian academic institutions and the Ministry of Health [to] identify and conduct operational research studies for priority issues…”112 Rwanda’s PRSP states that "higher learning institutions...perform other functions that are relevant to poverty reduction, such as applied research and consultancy in critical areas including… epidemiology."113

Health and Health Research: Link to Economic Growth

A total of 35 countries (71%) connected health to economic growth in their PRSPs, stating that ill-health is an important factor that negatively affects economic progress. For instance, while Lesotho emphasizes the impact of HIV/AIDS on the economic growth saying that: “HIV/AIDS reduce[s]/halt[s] economic growth and increase levels of poverty and income disparities.”114 Malawi underscores the importance of both, health and education for economic development and equity. A “healthy and educated nation leads to increased productivity, better income distribution and a generally improved standard of living.”115 For Bosnia-Herzegovina, the relationship between economic development and health can be described using two terms: “the economy of health” and “the health of the economy.”116

Despite these well established links between health and economic growth, there is very little evidence in the PRSPs that health research and economic progress are also connected. While, 84% of PRSPs address health research in some capacity, very few identify health research as a tool for achieving economic growth. Georgia, for example, indicates a link between health research and economic growth. “The development of Georgia will be oriented on elaboration and introduction of the state-of-art technologies, including those of health research, without which it is impossible to achieve fast and sustainable economic growth…”117
Countries indicate clear links between other types of research—for example, scientific, agricultural, and educational—and poverty reduction in their PRSPs, which implies recognition of the importance of increased research and evidence for sustainable growth. Indeed, research is included as an important strategy for poverty reduction in just over 51% (25 out of 49) of PRSPs; 11 of which mention science and technology research as a priority for poverty reduction. For Yemen, “the progress of the country and the realization of economic and social development depend[s] on increasing production and productivity, proper exploitation of resources, facing the challenges of globalization and competition and keeping pace with the developments and qualitative transformations in science, research and technology.”118 Vietnam acknowledges the importance of research as a leading force of “modernizing production forces, accelerating economic growth and poverty reduction in a sustainable manner,”119 while Serbia & Montenegro emphasizes the roles of academia and private sectors in research and development, noting that: “it is important to intensify applied research with the goal of supporting economic growth and development based on technological progress at higher university levels and among scientists [and] professors. This requires better integration and the strengthening of partnerships between the University and the private sector.”120

Moldova is an example of rigorous inclusion of health research, demonstrating its commitment to research through the creation of legislation that supports research and innovation. “Given the importance of developing research and innovation area in ensuring the sustainable growth and competitiveness of the national economy, the country’s leadership has adopted a series of legislative acts and strategic documents aimed at improving the created situation.”121

V. Results: Interviews

During the second stage of analysis, the team interviewed several experts in the fields of poverty reduction and health in order to better understand the validity of including components of health research within the PRPS framework. The following is a synthesis of the interviews, organized around common themes elicited via the previously described questionnaire.

**Understanding of Health Research as a Valid Poverty Alleviation Tool**

In determining the level of general understanding of health research as a poverty reduction tool, responses were varied. Some experts stated that it was unlikely to be given top consideration, highlighting the focus on provision of basic services as a reason. "If I was a Minister of Health or Finance...I'm not so worried about that kind of research; I worry about the fact that 60% of the population does not have access to basic health care."122 However, the question also yielded positive responses given the inclusion of monitoring and evaluation in health research. Effective monitoring and evaluation is an essential part of health research and the inclusion of it for health should be treated as an important recognition of the role health research can play in poverty reduction. Among those interviewed, research was highlighted as an extremely important tool that could be used for poverty reduction, particularly for its importance in interpreting data and developing policy. However, it was clear from all interviews that health research has not yet been identified as a strategy for economic growth and poverty reduction by countries submitting PRSPs.
**Role of Evidence in Poverty Reduction Strategies**

Interestingly, evidence was described as being extremely important to the development of poverty reduction strategies. In all interviews, evidence was described as important for general poverty analyses. "[There] is a lot more effort going into doing the broader poverty analysis. So the statistics are gathered and surveys done... so at one level of government quite a lot of work goes into doing very detailed poverty assessments." For the most part, while all acknowledged that there are mechanisms in place to collect data, responses varied about how effectively that data is used.

In the health sector, there was less certainty about the role of evidence in developing policies and strategies. Evidence-based approaches to poverty reduction strategies as a whole are becoming more prevalent; however, the use of evidence for health decision-making and policy development has not developed as rapidly. Several respondents stated that within the health sector, little effort is put into the development of new interventions or the generation of new evidence. Instead, the tendency is to use evidence from general health statistics and indicators and employ it with existing, proven interventions. This was highlighted mainly as a resource issue, but also as an issue of knowledge. Given the limited resources of MoHs and governments of low-income countries, there are few individuals who will lobby for the allocation of scarce funds for research to gain a better view of the health situation. This resource question is compounded by the lack of recognition of the importance of such research for policy development and decision-making.

An additional obstacle to using evidence for decision-making in health particularly, is the lack of a global definition of “good health” and good health programs. While there is agreement that health priorities and strategies in developing countries must be pro-poor, on a global policy level, there is no agreed statement of what a pro-poor health policy looks like or includes. Research conducted by the World Bank aimed at doing this; however no recommendations were generated from the study.

**PRSPs as a Potential Mechanism for Strengthening Health Research**

The experts interviewed agreed that the PRSPs are a framework for proposing strategies and identifying priority sectors in the countries' overall strategy for poverty reduction. According to a Senior World Bank Official, PRSPs are a strategy document which should provide broad direction and reachable targets, not an instrument by which targets are to be reached. The macro-level focus of the papers was highlighted by a majority of respondents, particularly when the document is correctly regarded as a government-wide strategy document. Another Senior World Bank official stated the PRSPs “make a useful framework for helping shape priorities…,” but noted that they may not be the proper mechanisms to increase funding for a specific instrument like health research. The respondents, overall, raised many questions about PRSPs being the best mechanism to strengthen health research and, particularly, to build national systems able to generate and analyze evidence.

The overwhelming response was that while PRSPs do contain components of health research, these documents are not the most appropriate or effective mechanisms to strengthen health
research. “[T]he purpose of the [PRSP] shouldn’t be to promote health research. The purpose of the [PRSP] should be to put...what is expected to be achieved in health in the context of the development agenda of the country. Then, you will have several instruments” that can be used to detail the instruments to be used. Considerations should be made about what is essential to be included in the PRSP and what tools may be more effective outside of the framework.

**Health Research Coordination within PRSPs**

Interviews with individuals within the Health, Nutrition, and Population division of the World Bank provided examples of countries “using data information...But [stated that] this is different from having health research as part of the [Poverty Reduction Strategy].” Country examples that have integrated aspects of health research as a part of their poverty reduction strategies include Burkina Faso, Ghana, Tanzania, and Vietnam. These countries have demonstrated increasing use of an evidence-based approach to policy and are using performance indicators and monitoring to make decisions about sectors and programs. However, this is different than having health research incorporated into the PRSP, in that such a practice has not been identified as a strategy within the document so much as a “best practice” for the countries.

The need for prioritization was central among respondents’ suggestions for the best way to promote health research as a poverty reduction tool. “Countries should include the [specific] priority field in [the] PRSP...” which will make promotion of health research easier, particularly regarding the attraction of funds. Such prioritization within the PRSP will require a critical mass of voices calling for research funding and the power to demand such priority, something that does not currently exist. According to a funder of health research, there is a need for “national and international leadership to work on improving health” in order to truly promote and prioritize health research as a strategy.

Once these tools and priorities have been included in poverty reduction strategies, one expert felt that there must be a focus on “how one connects these strategies more effectively to the domestic decision-making process. How you make sure that this strategy isn’t a piece of paper produced just for donors, but really is a tool that helps to create the basis for evidence-based decision-making.” Recognizing that the domestic decision-making process involves the interaction of various sectors within the government and society, it was stressed that the process by which health and health research achieved a position of priority within the overall strategy must include a method of conversation between different sectors. Another expert suggested that “if there are aspects of operational research or evidence building...which require you to cross sectoral boundaries, that is a good context in which to pursue them because you have all of the different sectors sitting around a table talking about what needs to be done to reduce poverty.”

It was generally agreed that funds are available for research, both from the World Bank and other bilateral funders who use the PRSP as a guide. A Senior Health Advisor for the World Bank stated that all World Bank program budgets have a line item that includes support for research. “[A]ll [Bank projects in the health sector] have somewhere a line-item that explicitly allows for Bank money to be used for health research.” The item is described as support for the “analytical agenda” and has a small allocation that, once used, can be easily refilled for future use. However, several responses from experts were that, while there may be available funding
for health research, there is no critical mass demanding that it be put on the agenda and made a priority for funding.

In addition to World Bank resources, several experts highlighted the ease with which resources could be attracted for health research outside of the PRSP framework. In particular, it was stressed that there is a need to look beyond the PRSP framework to the larger group of funders who may be interested in providing support for research and development. “I would urge anyone who wants to pursue the effectiveness of a research agenda in a low-income country to look broader than only the PRSP or the PRSC and look very much at the aggregated group of external funders to a country as a whole.” Such an approach requires also examining the mechanisms through which these funds can be mobilized, but increases the opportunities to strengthen health research.

**Mechanisms by which Health Research could be Coordinated**

The general recommendation for the best way to promote and coordinate health research was to look nationally—to focus attention on the Ministry of Health and sectoral plans. Given that governments of low-income countries have not yet fully embraced health research as a tool for poverty reduction, there is a need for advocacy at the national level to increase awareness and appreciation for the role it can play. “Health policy has to be country led…and the role of development partners is to advise countries ….part of that [role] might be convincing them of the need of operational research, in it, not for its own right, but in its context of showing what it can deliver.” The importance of this was highlighted by a Senior World Bank Official: “If you don’t have [health research as a priority for the sector], don’t be surprised if your poverty reduction strategy doesn’t have any content in this sector…”

Responses to questions about where advocacy for health research should take place all focused on the role of the Ministry of Health and the national government. There is a need to work with ministries “to make sure that operational research is properly reflected in a sector plan.” Additionally, work must be done to enable MoHs to interface with Ministries of Finance and Planning to ensure that their sector receives an adequate amount of funding. A tool described by a funder of health research as effective for such advocacy were one-page summaries with “bulleted gains” of health research on economic growth and health. There is a need for “more readable papers” on the subject of health research for policy makers.

Due to a feeling that sectoral plans are “much more substantive [and funders] have a better understanding of what…the agenda [is], …donors feel more comfortable with [them].” The use of sector plan as the most effective way to promote health research was highlighted in a majority of interviews, particularly among World Bank officials.

The important role of organizations like COHRED that promote and advocate for the importance of health research for poverty reduction was highlighted in several interviews. In particular, work in low-income countries was noted as significant. “If [an organization like COHRED does] its work well, [it] would be able to put together…a power structure at national level that will speak up for funding for research and that has a strong enough and big enough voice to be at the table.”
VI. Discussion

The objective of this research project was to explore whether Poverty Reduction Strategy Papers are a viable mechanism for strengthening and promoting health research as a strategy for improving economic growth, reducing poverty, and improving health in developing countries. If the PRSPs are to be a mechanism to strengthen health research, it is imperative that they integrate all three types of health research: direct interventions, essential evidence and monitoring and evaluations. Any policy mechanism that seeks to coordinate health research must have an integrated approach that includes all three. As such, health research needs to be conceived of as a continuum, with each of the components inter-related and feeding into one another (see Figure 12).

![Figure 12: Health Research Continuum](image)

An analysis of 49 PRSP documents and interviews with experts in health, health research, and poverty led to the conclusion that, at this stage, the PRSPs are not the most effective mechanism to strengthen health research in developing countries. As evidenced by the desk review of the PRSPs, only eight countries currently include all three types of health research: Bangladesh, Benin, Cameroon, Guyana, Lao P.D.R, Madagascar, Mozambique, and Vietnam. Why aren’t more countries including all three types of health research in their PRSPs? The literature review and interviews highlighted several reasons. The most salient are that PRSPs are intended as a macro-level strategic document and the process is still in its early stages, both indicating potential opportunity for health research to play a role within national planning documents. Unfortunately, while there is appreciation for the role of health research in reducing poverty, developing countries face several challenges in including health research on their policy agenda.

**Structural: A Macro Document**

The PRSP, as reiterated in numerous interviews, is intended as a macro level strategic document. It is meant to serve as an overarching guideline for policies and strategies for the country as a whole. They include strategies for all sectors including agricultural, infrastructure, economic, and banking sectors. More detailed plans which would include health research should be enumerated at the sectoral planning level within appropriate ministries. Ministries need to develop detailed sectoral plans, which are translated, in more general terms, into the PRSP. Including too much detail in the PRSP makes it an unwieldy, unusable document.
According to a Senior Official at the IMF, “If [the PRSP] becomes everything to everybody, it becomes nothing.” The PRSPs are a good mechanism for providing essential infrastructure to the health system, which will overlap with health research in areas of monitoring and evaluation and health information systems, but it is difficult to include targeted health research with the PRSP, and indirectly channel funding towards direct health research in developing countries.

**Early Stages**

Established in 1999, many countries are still in the first generation of the PRSP framework. Of the approximately 70 countries that qualify to engage in the PRS process, 50 countries have completed a PRSP to date. Of these countries, only 6--Burkina Faso, Ghana, Nicaragua, São Tomé and Príncipe, Senegal and Uganda—have completed a second PRSP since its inception in 1999. This small group could provide a useful comparison study as to whether health research has become a more integral component of the PRSP as countries enter the second generation. To gain a comprehensive picture of how health research factors in the PRSP and whether its role is changing over time requires an examination of a larger pool of second generation PRSPs.

In the meantime, examining countries’ progress and status reports, which are conducted on a regular basis, can provide insight into how and if the role of health research is evolving the framework. World Bank and IMF reviews of the PRSP process are instructive on a macro-level. For instance, the World Bank’s September 2005 report, “Review of the Poverty Reduction Strategy Approach: Balancing Accountabilities and Scaling Up Results” recognizes that the “PRS approach and other initiatives have strengthened the focus on results...however significant challenges remain in developing well coordinating monitoring systems with quality information that is accessible to various stakeholders.”

As is the case in measuring the success of the PRSPs, a longer term perspective is also necessary in evaluating how health research plays a role in the process.

**Challenges**

Even if the structural and longevity hurdles were overcome, health research faces several challenges in gaining saliency in the PRSPs and within developing countries themselves. There is limited interest to include health research in the PRSPs, which is attributed to a lack of critical mass, both within countries and donor institutions. As one expert said, “there is a weakness at the country level that is reinforced by the Bank, IMF and bilaterals.” Whether health research is included in the agenda and national planning documents depends on how relevant and embedded it is within a country and that feeling is generally not the case.

Not only is there limited interest, but developing countries face other obstacles in terms of health research. One of the challenges of health research is the lack of research into health service delivery gaps. As suggested by one respondent “what is the use of developing new products which are more effective and less expensive if there are no services to deliver them?” Another challenge is the scarcity of resources and the increasingly results-driven culture of development aid. The scarcity of resources impacts the decision-making process. As one respondent said, in low income countries, “a logical decision from a decision-maker point of view would be not to
develop health research for the country but to use the available body of health research and apply to their country.”

**VII. Recommendations**

The following areas merit further research into how health research factors into a country’s national strategy to reduce poverty and how health research can play a more central role in such strategies, whether developed at a national, regional or international level.

**PRSP Case Studies**

The review of the PRSPs and expert interviews highlighted several countries as excellent candidates for case studies. These countries—Bangladesh, Benin, Cameroon, Guyana, Lao P.D.R, Madagascar, Mozambique, and Vietnam—identified all types of health research in their PRSPs and also appeared to match their health priorities to stated health research objectives. Interviews also highlighted several of these countries when asked for examples of **countries that have integrated research or health research into PRSPs.** For instance, Mozambique has a Sector Wide Action Plans (SWAP) in health, indicative of coordinated action in the sector and has recently created a Ministry of Science and Technology. Burkina Faso is one of several countries that is looking at performance indicators to make adjustments in the health sector and Vietnam is fairly sophisticated in strategic planning. Cameroon is mentioned as one of several African countries that have some research history and where donors feel comfortable investing in and expanding the research capacity of the country. Thus, these countries represent a pool ripe for further investigation, at a deeper level than the capacity of this project.

Kenya and Tanzania, two countries known to be making progress in their health sectors, did not contain many explicit references to health research, but have comprehensive monitoring and evaluations systems for the entire PRSP. Kenya and Tanzania appear to take the macro-level approach to the PRSP, as intended by World Bank officials, thus investigation is merited as to how health research plays a role in their health sectors and whether it is included in other national planning at the sectoral and ministerial levels.

**Further Exploration of Health Research in Planning Documents**

Health research, in its most applied sense—as monitoring and evaluation systems—appeared in 78% (38) of PRSPs, yet the most direct targeted health research appeared in only 33% (16) PRSPs. This result did not surprise any of the experts interviewed, and led to the suggestion that more direct forms of health research could be found in a country’s sectoral plans, if anywhere. Thus, one avenue of further research is to explore the appropriate sectoral plans—health and education—within a country to determine how health research is being integrated into strategic plans and implemented in programming.

A second area to explore is the evolution of health research within the PRSP process itself, comparing first and second generation PRSP documents and evaluating if there is any change in the how health research is included. For this purpose, 6 countries with the second generation
PRSPs- Burkina Faso, Ghana, Nicaragua, Sao Tome and Principe, Senegal and Uganda - can constitute a group for another case study.

Finally, another area to explore is the World Bank’s lending for health research before and after the PRSP process. The World Bank has published a report "Review of World Bank Lending for Science and Technology, 1980-2004." According to this report, 19 projects in the health sector used Bank support for S&T capacity building and research, ranging from less than $1 million to $104 million; overall Bank S&T-focused health projects were relatively uncommon. An interesting study would contrast World Bank lending in the health research sector before and after the PRSPs were initiated.

**Platform for Coordinating and Advocating for Health Research**

While health research is widely recognized as an important contributor to reducing poverty, the question remains, whose responsibility is it to strengthen and advocate for the health research agenda. As several experts interviewed stated, health research is a global public good. In which case, responsibility arguably lies at a regional or an international level with multilaterals, INGOs and foundations sharing responsibility for promoting and coordinating health research. Such efforts should be linked to regional and national initiatives in developing countries.

On a national level, focus should be on advocacy, as there is often limited capacity for coordinating health research in many developing countries. Efforts to promote health research should target those with the power to promote the health research agenda within the country, whether these are key ministerial officials, public health officials, doctors or university researchers.

On a regional level, both coordination and advocacy are relevant and feasible. An excellent example of a regional organization recognizing the importance of health research is the East African Community (EAC), whose council of ministers recently passed recommendations aimed at fast tracking the integration of health sectors in Kenya, Uganda and Tanzania. The recommendations included establishing the East African Health Research Council.

Ultimately, the international level is the most powerful platform for coordinating and advocating health research, since these bilaterals, multilaterals, INGOs and foundations have the most money, resources and overall capacity to do so. A positive development at the World Bank is the emergence of the Science and Technology Group within the Education Sector. But the task of advocacy and raising awareness of the critical importance of health research for developing countries rests with NGOs like COHRED and independent foundations that make research possible. A role exists for corporations, especially pharmaceuticals, and bilateral governments, in increasing cooperation to coordinate health research globally.

“It is not that countries are poor that they cannot afford good health information; it is because they are poor that they cannot afford to be without it.” The benefits of health research include improved sectoral decision capacity, based on proven facts versus individual political agendas or preconceived notions of how to address health issues. It can help in designing more cost efficient programming allowing for better targeting as well as ensuring that it reaches the poorest
of the poor. Lastly, research and development can help discover better cures and treatments for illnesses that impact primarily poor countries being that these are overlooked in most research agendas. The true value of this research is in the translation of the research conclusions into action, specifically into government policies and practices.
**ANNEX I: Complete List of Poverty Reduction Strategy Papers Reviewed**

1. Albania (November 20, 2001)  
3. Azerbaijan (April 1, 2003)  
4. Bangladesh (October 16, 2005)  
5. Benin (December 30, 2002)  
7. Bolivia (March 31, 2001)  
10. Cambodia (December 20, 2004)  
12. Cape Verde (September 2004)  
13. Chad (June 30, 2003)  
15. Ethiopia (July 31, 2002)  
17. Georgia (June 30, 2003)  
18. Ghana (February 19, 2003)  
20. Guyana (May 23, 2002)  
21. Honduras (August 31, 2001)  
23. Kyrgyz Republic (December 9, 2002)  
25. Lesotho (July 2005)  
27. Malawi (April 23, 2002)  
29. Mauritania (December 13, 2000)  
31. Mongolia (July 3, 2003)  
32. Mozambique (April 30, 2001)  
34. Nicaragua (July 31, 2001)  
35. Niger (January 16, 2002)  
36. Pakistan (December 31, 2003)  
37. Rwanda (June 30, 2002)  
38. São Tomé and Príncipe (January 2005)  
39. Senegal (May 2005)  
40. Serbia & Montenegro (February 14, 2004)  
41. Sierra Leone (March 2005)  
42. Sri Lanka (December 5, 2002)  
43. Tajikistan (June 30, 2002)  
44. Tanzania (October 1, 2000)  
45. Timor-Leste (May 20, 2002)  
46. Uganda (April 2005)  
47. Vietnam (November 30, 2003)  
48. Yemen (May 31, 2002)  
49. Zambia (March 31, 2002)
### ANNEX II: Evaluation Questions & Keywords

<table>
<thead>
<tr>
<th>PRSP Evaluation Questions</th>
<th>Keywords used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Is state funding of health included?</td>
<td>Funding, Budget, spending, expenditures, allocation, allocate</td>
</tr>
<tr>
<td>2) Is Health budget as %GDP mentioned?</td>
<td>Funding, Budget, spending, expenditures, GDP, allocation, allocate</td>
</tr>
<tr>
<td>3) Projected change in health budget</td>
<td>Funding, Budget, spending, expenditures, GDP, projection, projected, + increase, decrease</td>
</tr>
<tr>
<td>4) Are Sources of Funding for Health Identified?</td>
<td>Funding, Budget, spending, expenditures, GDP, donor, agency, grants, loans, program</td>
</tr>
<tr>
<td>5) Are issues of inequity addressed?</td>
<td>Inequity, inequality, unequal, access, disadvantaged, vulnerable, marginalized, equity, equality</td>
</tr>
<tr>
<td>6) Is Health Inequity Acknowledged?</td>
<td>Inequity, inequality, unequal, access, disadvantaged, vulnerable, marginalized, equity, equality</td>
</tr>
<tr>
<td>7) Does PRSP indicate a link between poverty &amp; health</td>
<td>poverty, health, eradication, alleviation, reduction</td>
</tr>
<tr>
<td>8) Does the PRSP state that improving health contributes to economic growth?</td>
<td>Economic, growth, improvement, contribute, innovation, production</td>
</tr>
<tr>
<td>9) Does the PRSP indicate the country's priorities in the health field?</td>
<td>priority, health, objective, goal, priorities</td>
</tr>
<tr>
<td>10) Are &quot;Health Systems&quot; Mentioned?</td>
<td>&quot;Health System&quot;, Infrastructure, &quot;Health Infrastructure&quot;, &quot;health sector&quot;, &quot;Health Field&quot;, health services, delivery, health policy</td>
</tr>
<tr>
<td>11) Are there Links between the non-health sections of the PRSP and the health field?</td>
<td>(use health reference - and look at surrounding information )</td>
</tr>
<tr>
<td>12) Is &quot;Health Research&quot; addressed in PRSP?</td>
<td>&quot;Health Research&quot;, biotechnology, biology, study, research, pharmaceutical, medical, scientific, population, clinical, &quot;health care&quot;, drugs, medicine, prevent, develop, science?, epidemiology, statistics, health information, evidence</td>
</tr>
<tr>
<td>13) Is research considered as a contributor to poverty reduction?</td>
<td>Poverty, alleviation, reduction, reduce, decrease, research, science, evidence, scientific</td>
</tr>
<tr>
<td>14) Does the PRSP state that health research contributes to reduction of ill health</td>
<td>(use health research reference - and look at surrounding information )</td>
</tr>
<tr>
<td>15) Is Capacity and Infrastructure for Health Research Addressed</td>
<td>infrastructure, capacity, capability, &quot;human resources&quot;, skill, scientist, doctor, nurse, clinician, medical, expert, training, workforce, “brain drain”</td>
</tr>
<tr>
<td>16) Does the PRSP include a qualitative or participatory poverty assessment or other sources of data? (include date if applicable)</td>
<td>Qualitative, participatory, assessment, poverty, PPA, QPA, survey, data, poll</td>
</tr>
<tr>
<td>17) Does the PRSP include monitoring and evaluation tools for tracking progress in health?</td>
<td>monitor, evaluation, evaluate, assess, analysis, impact assessment, outcome</td>
</tr>
</tbody>
</table>
ANNEX III:Codes used in PRSP Evaluation

Question 3 - Projected change in health budget
0 - Decrease
1 - Increase

Question 4 - Are Sources of Funding for Health Identified?
0 - State
1 - Local Private Sector
2 - WB/IMF
3 - Population
4 - Other – (NGO, bilateral)

Question 9 - Does the PRSP indicate the country's priorities in the health field?
0 - HIV/TB/Malaria
1 - Other Disease
2 - Reproductive Health
3 - Human Capital
4 - Infrastructure- Physical Capital
5 - Healthcare Management
6 - Nutrition
7 - Basic Care
8 - Research
9 - Children
10 - Other

Question 12 - Is "Health Research" addressed in PRSP?
1 - Biomedical
2 - Pharmaceutical
3 - Epidemiology
4 - Other

Types of Health Research
1 - M&E
2 - Essential Evidence for policy/decision
3 - Targeted Research

Question 15 - Is Capacity and Infrastructure for Health Research Addressed
1 - Discussed –Generally
2 - Addressed w/recommendations
3 - Addressed w/solutions
4 - Not addressed
## ANNEX IV: Health Priorities Codes used in PRSP Evaluation

<table>
<thead>
<tr>
<th>Health Priorities</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Group I – Communicable diseases and maternal, perinatal and nutritional conditions</td>
<td></td>
</tr>
<tr>
<td>1.1 HIV/AIDS</td>
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</tr>
<tr>
<td>1.1 HIV/AIDS</td>
<td></td>
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<tr>
<td>1.2 Tuberculosis</td>
<td></td>
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<tr>
<td>1.3 Malaria</td>
<td></td>
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<tr>
<td>1.4 Childhood diseases &amp; Perinatal conditions</td>
<td>Perinatal conditions – Conditions arising during the perinatal period (low birth weight, and birth asphyxia and trauma) Childhood diseases – Pertussis, polio, diphtheria, measles and tetanus</td>
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<tr>
<td>1.5 Nutritional deficiencies</td>
<td></td>
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<tr>
<td>1.6 Maternal conditions</td>
<td>Inc. Reproductive health</td>
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<tr>
<td>1.7 All other Group I conditions</td>
<td>Respiratory infections &amp; Other infectious and parasitic diseases – Other sexually transmitted diseases, bacterial meningitis, hepatitis B and C, tropical cluster diseases (e.g., shistosomiasis, filariasis), leprosy, dengue, Japanese encephalities, trachoma and intestinal nematode infections</td>
</tr>
<tr>
<td><strong>2</strong> Group II – Non-communicable diseases</td>
<td>Cancer, cardiovascular disease, mental health and other non-communicable disease (inc. diabetes, endocrine disorders, sense organ diseases, asthma, digestive diseases, genito-urinary diseases, skin and musculo-skeletal diseases, congenital anomalies)</td>
</tr>
<tr>
<td><strong>3</strong> Group III – Violence and injuries</td>
<td></td>
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<tr>
<td><strong>4</strong> Basic health care</td>
<td></td>
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<tr>
<td><strong>5</strong> Health systems</td>
<td></td>
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<tr>
<td>5.1 Human resources/capacity</td>
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<tr>
<td>5.2 Access to services</td>
<td></td>
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<tr>
<td>5.3 Physical capacity/infrastructure</td>
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<tr>
<td>5.4 Health policy/Healthcare management</td>
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<tr>
<td>5.5 Other health systems</td>
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<table>
<thead>
<tr>
<th>Type of Health Research</th>
<th>Description</th>
<th>Coding</th>
</tr>
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<tbody>
<tr>
<td>Monitoring and evaluation</td>
<td>Health determinants and the contextual and legal environments within which the health system operates; Inputs to the health system and related processes including policy and organization, health infrastructure, facilities and equipment, costs, human and financial resources and health information systems; The performance or outputs of the health system such as availability, quality and use of health information and services; Health outcomes (mortality, morbidity, disability, well-being, disease outbreaks and health status); and Health inequities in determinants, coverage and use of services, and outcomes, including key stratifiers such as sex, socioeconomic status, ethnic group and geographical location. <a href="http://www.scielosp.org/scielo.php?script=sci_arttext&amp;pid=S0042-96862005000800010&amp;lng=en&amp;nrm=iso&amp;tlng=en">Link</a> Public health services, social medicine, hygiene, nursing, health economics, health services</td>
<td>1</td>
</tr>
<tr>
<td>Evidence essential to policy decision-makers (health information systems, epidemiology, surveillance)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Targeted health research on specific topics</td>
<td>Anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immunohaematology, clinical chemistry, clinical microbiology, pathology, biomedicine and other basic science directly applied to health.</td>
<td>3</td>
</tr>
</tbody>
</table>
**ANNEX VI: PRSP Evaluation Responses**

1) Included State Funding in the PRSPs

<table>
<thead>
<tr>
<th>Country</th>
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<tbody>
<tr>
<td>Armenia</td>
<td>Djibouti</td>
<td>Mali</td>
<td>Serbia &amp; Montenegro</td>
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<td>Azerbaijan</td>
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<td>Mauritania</td>
<td>Sierra Leone</td>
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<td>Ghana</td>
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<td>Uganda</td>
</tr>
<tr>
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2) Health Budget was mentioned as % of GDP

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3) Health Budget Projected to Change

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4) Funding sources Identified for Health

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5) Issues of inequity were addressed

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6) Health Inequity was acknowledged

| Albania          | Djibouti      | Malawi     | Senegal               |
| Armenia          | Gambia, The   | Mali       | Serbia & Montenegro  |
| Azerbaijan       | Georgia       | Mauritania | Sierra Leone         |
| Bangladesh       | Ghana         | Moldova    | Sri Lanka             |
| Benin            | Guinea        | Mongolia   | Tajikistan            |
| Bolivia          | Guyana        | Mozambique | Tanzania              |
| Bosnia-Herzegovina | Honduras   | Nepal      | Timor-Leste           |
| Burkina Faso     | Kenya         | Nicaragua  | Uganda                |
| Cambodia         | Kyrgyzstan    | Niger      | Vietnam               |
| Cameroon         | LAO P.D.R     | Pakistan   | Yemen                 |
| Cape Verde       | Lesotho       | Rwanda     | Zambia                |
| Chad             | Madagascar    | São Tomé and Príncipe |

7) The PRSP indicates a link between poverty & health

ALL

8) The PRSP states that improving health contributes to economic growth

| Albania          | Ethiopia      | Malawi     | Pakistan               |
| Armenia          | Gambia, The   | Mali       | Rwanda                 |
| Bangladesh       | Georgia       | Mauritania | Sao Tome & Principe   |
| Bolivia          | Ghana         | Moldova    | Sierra Leone           |
| Bosnia-Herzegovina | Guinea      | Mongolia   | Tajikistan             |
| Burkina Faso     | Guyana        | Mozambique | Timor-Leste            |
| Cambodia         | LAO P.D.R     | Nepal      | Uganda                 |
| Cameroon         | Lesotho       | Nicaragua  | Zambia                 |
| Chad             | Madagascar    | Niger      |                       |

9) The PRSP indicates the country's priorities in the health field

ALL

10) "Health Systems" are Mentioned

ALL

11) There is a link between the non-health sections of the PRSP and the health field

<p>| Albania          | Djibouti      | Malawi     | Senegal               |
| Armenia          | Ethiopia      | Mali       | Serbia &amp; Montenegro  |
| Azerbaijan       | Gambia, The   | Mauritania | Sierra Leone         |
| Bangladesh       | Georgia       | Moldova    | Sri Lanka             |
| Benin            | Ghana         | Mongolia   | Tajikistan            |
| Bolivia          | Guinea        | Mozambique | Tanzania              |
| Bosnia-Herzegovina | Guyana      | Nepal      | Timor-Leste           |
| Burkina Faso     | Kenya         | Nicaragua  | Uganda                |</p>
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12) "Health Research" is addressed in PRSP

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13) Research is considered as a contributor to poverty reduction

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14) The PRSP states that health research contributes to reduction of ill health

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15) Capacity and Infrastructure for Health Research are addressed

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16) The PRSP includes a qualitative or participatory poverty assessment or other sources of data

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17) The PRSP includes monitoring and evaluation tools for tracking progress in health
ANNEX VII: Introductory Letter

<Date>

Dear <Name>:

I am writing to you as part of a research project currently being undertaken as a joint venture between Robert F. Wagner School of Public Service at New York University (NYU) and the Council on Health Research for Development (COHRED). The project seeks to determine the efficacy of utilizing the Poverty Reduction Strategy Paper (PRSP) framework as a mechanism for increasing the use of evidence to improve health and reduce poverty.

<Insert name here> suggested we contact you as an exceptional source of information relating to the PRSP process. As such, we would greatly appreciate the opportunity to arrange a brief interview with you in order to discuss our project and gain your insights. In particular, we hope to increase our understanding of the relevance of including research and evidence for health in the PRSP agenda. Assuming that it is an appropriate tool, we also seek to understand what the hurdles are to its inclusion and what the possible mitigating steps for those hurdles might be.

Thus far, we have conducted a review of 49 PRSPs (all full PRSPs as of October 2005) to assess the extent to which they have considered research and evidence to inform health sector activities including, monitoring and evaluation systems, health information systems, and specific types of health research. We will send you a summary of our findings from the PRSP evaluation and a list of questions in advance of the interview, as a basis for discussion.

We would greatly appreciate being able to interview you and gain your insights for the study. We will contact you in the next day or two to answer any questions that you may have on the project, and to arrange an interview at your convenience.

Sincerely,

<Sign Name>

Should you have any questions regarding this project, please do not hesitate to contact Dr Andrew Kennedy, of COHRED at kennedy@cohred.org or +41 22 591 8903; or Dr Lucille Pilling, of NYU, at lpd1@nyu.edu or +1 212 998 7411.
**ANNEX VIII: Tally of Interviews**

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<td>Number of requests unanswered</td>
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<td>Number of Interviews scheduled</td>
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<td>Number of Interviews completed</td>
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## ANNEX IX: List of Interviews

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<td>International Monetary Fund</td>
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ANNEX X: Interview Background Document

Council on Health Research for Development Capstone Project 2005-2006
Background Document for Stage Two Interviews

Client: Council on Health Research for Development (COHRED)
Team: Jennifer Keane, Gvantsa Kvinikadze, Jennifer O’Hara, Sunita Palekar
Project: Assessing the Efficacy of Health Research as a Development Strategy within the World Bank and IMF’s Poverty Reduction Strategy Papers
Date: February-March 2006

BACKGROUND

This research study aims to answer the following question: are PRSPs a potential mechanism for coordinating health research as a strategy for reducing ill-health and poverty in developing countries. In particular:

- Do PRSPs include health research as a strategy for reducing ill-health and poverty? If so, what types of health research do PRSPs target?
- Is the PRSP approach an appropriate mechanism for coordinating these forms of health research?
- What is required to ensure that the health research components of PRSPs are used to greatest effect?

The purpose of this inquiry is to find effective ways that will enable developing countries to utilize the potential of health research and benefit from improved healthcare services and a reduction in poverty, ill-health and health inequity.

Key Definition:
Health research is defined in its broadest sense as the: “generation of new knowledge using the scientific method to identify and deal with health problems.” It includes Monitoring and Evaluation in the health sector, health information systems, studies on health systems research, including capacity, access, cultural impacts, as well as biomedical and technological advances, and epidemiology.1

The project is designed in two stages:
- Stage One is designed to determine whether Poverty Reduction Strategy Papers (PRSPs)2 address health research as a tool for poverty reduction. This was done through a systematic review and analysis of all existing full Poverty Reduction Strategy Papers. The main results from Stage 1 are presented below.
- Stage Two is designed to provide insights to inform the interpretation of the findings from Stage One, through interviews with experts in PRSPs, health, and health research. The aim is to assess how health research can be included in the policy agenda for PRSPs and these interviews will be

---

1 Adapted from “Health research – Essential link to equity in Development,” Commission on Health Research for Development, Oxford University Press 1990.
2 “As of end-October 2005, 49 full PRSPs have been circulated to the Fund Executive Board, and an additional 11 countries have completed preliminary, or “interim”, PRSPs”. Poverty Reduction Strategy Papers (PRSPs), IMF. http://www.imf.org/external/np/exr/facts/prsp.htm
complemented by an extensive review of the existing literature describing the relationships between health, health research, and poverty reduction.

**STAGE ONE FINDINGS**

**Health Priorities**
Every country reviewed includes a list of health priorities in combating poverty. Basic care is the overriding health priority noted within the PRSPs, particularly the need for improved access in rural areas. Access to health care services is noted as a priority in all 49 PRSPs. Also of significant concern is the impact of disease on the poor populations, particularly the burden of HIV/AIDS. Fifteen countries identified research as a health priority; these countries are: Albania, Azerbaijan, Bolivia, Burkina Faso, Cambodia, Cape Verde, Kyrgyzstan, Moldova, Mongolia, Nicaragua, Pakistan, Serbia & Montenegro, Tajikistan, Uganda, and Yemen.

**Link between Poverty & Health**
The link between poverty and health is very strong in the PRSPs. Inequity in health is mainly addressed as an issue of access to the health system and health care. The issue of access and parity of services extends, not only across the issue of wealth, but also regionally.

**Research as a Contributor to Poverty Reduction**
Research is included as an important strategy for poverty reduction in just over 50% (25 out of 49) of PRSPs. For the 25 countries that highlighted research, 11 of them indicated that research, in general, is a lever for poverty reduction. Notably, Benin listed research as one of several priorities for interventions in the health sector and Cameroon highlighted research as important for the fight against HIV/AIDS. Eleven countries mentioned science and technology research as a priority for poverty reduction.

A total of 14 countries (29%) directly state that health research contributes to the reduction of ill-health. These countries are: Azerbaijan, Bangladesh, Cambodia, Cameroon, Cape Verde, Djibouti, Ghana, Lesotho, Madagascar, Nicaragua, Rwanda, Serbia and Montenegro, Tajikistan, and Uganda.

**Health Research: Types & Capacity**
84% (41 out of 49) of PRSPs addressed Health Research while twelve countries include little or no reference to health research. The review found that PRSPs identify three areas of health research: monitoring and evaluation; routine health information, surveillance, and epidemiology targeted at policy decision-making; and targeted research. 78% (38 out of 49) of countries identify monitoring and evaluation for the health system, while 80% of countries mention routine health information for decision-making. Only 16 (33%) include targeted health research interventions. These countries are: Bangladesh, Benin, Cambodia, Cameroon, Georgia, Guyana, Lao P.D.R, Madagascar, Moldova, Mongolia, Mozambique, Nicaragua, Rwanda, Serbia & Montenegro, Tajikistan, and Vietnam.

A majority of countries (37 out of 49) address capacity and infrastructure for health research, to varying degrees. The reviews evaluated capacity and infrastructure for health research on four levels: not addressed, capacity gap addressed, recommendations for increasing capacity, and solutions for closing capacity gap. Twenty-three PRSPs discuss capacity and infrastructure in general terms, while ten address capacity and infrastructure problems and provided recommendations on what needed to be done. Only four countries offer solutions to close the capacity and infrastructure gap for health research; these countries were Guyana, Lao P.D.R, Mozambique, and Tajikistan.

All countries include some monitoring and evaluation tools for tracking progress in health; these range from brief mention to detailed plans and outlines.
The purpose of this interview is to learn about the inclusion of health research as a poverty alleviation mechanism under the PRSP process.

Your comments are very important to us and we appreciate your openness. Please know that we will keep your observations strictly confidential.

We will use an interview schedule as a guide, but please feel free to interject your thoughts, or go back to certain questions, etc.

You can talk faster than we can write, and we want to be sure we are accurate in recording your thoughts. So, although we will be taking notes, unless you have an objection, we would like to tape our conversation.

Any questions before we begin?

1. **First, please tell us about yourself.**
   - What is your position?
   - In what capacity have you been involved with the overall PRSP process, health, research, health research? In the past?

2. **Generally, what are the primary objectives of the PRSPs?**
   - Is the aim poverty alleviation or poverty reduction?
   - Are these objectives met by the current batch of PRSPs?

3. **Is there a general understanding that Health Research is a valid poverty alleviation tool?**
   - Is health research a term generally understood?
   - Is research, or evidence, understood as a poverty reduction strategy? If not, why not?

4. **What is the role of evidence in poverty reduction strategies?**
   - In general, is evidence used as the basis for making decisions? And is there a difference between theory and practice?
   - Is the way evidence is used for decision-making for the health sector different than the way it is used in other sectors?
   - We observed three main mechanisms for collecting evidence in our review (M&E, Routine information essential to inform policy & decision makers, Targeted research on specific priority topics). Are all of these prioritized as means for informing strategy development or implementation?
5. **What role can the PRSP mechanism play to help build national systems able to generate and analyze evidence?**
   - Generally, can the PRSP mechanism be used to plan, develop capacity, and collect data that can be used as evidence?
   - What are the biggest challenges of using the PRSP mechanism to coordinate and promote health research?
   - Can the PRSPs serve as a mechanism to coordinate health research as a poverty reduction strategy in developing countries?

6. **What steps are necessary in order to have the issue of health evidence systems built into PRSPs?**
   - Are there any examples of countries that have integrated research or health research into PRSPs well?
   - For countries that have included health research as a strategy, are you aware of how it was put on the agenda?
   - For those countries that use the PRSP to coordinate research or health research, can you comment on any specific outcomes or impacts?

7. **After looking at the results of our PRSP analysis, are there any findings that particularly strike you?**
   - In particular, the resulting data and analysis of the types of health research included in the PRSPs?
   - Funding and spending in the health sector was not clearly defined in over one-third of the PRSPs. Are there stipulations for sectoral funding within the process that make it unnecessary for such information to be included?

8. **Is there anything else that seems important that I have not asked?**

Thank you! I truly appreciate the time you have taken to answer these questions.

The purpose of the interview is to learn about the (health/health research/PRSP) in order to identify, describe, and further the understanding of the health research as a development strategy.

The main points we discussed were: (do a brief summary of the points)

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Make sure the following concepts were addressed in the discussion. If not, explicitly ask the following questions:

- In your own words, how would you describe health research?
- What do the following concepts mean to you?
  - Poverty Strategy Reduction Papers
  - Health Research
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77. World Bank and International Monetary Fund, “Synthesis 2005 Review of the PRS Approach:
Balancing Accountabilities and Scaling Up Results,” September 2005
79. World Development Report 2005
   http://www.who.int/hdp/en/
81. 2004-05 Capstone Policy Brief
82. Yemen Poverty Reduction Strategy Paper, 2002
ENDNOTES

1 “As of end-August 2005, 49 full PRSPs have been circulated to the Fund Executive Board, and an additional 11 countries have completed preliminary, or “interim”, PRSPs”. Poverty Reduction Strategy Papers (PRSPs), IMF. http://www.imf.org/external/np/exr/facts/prsp.htm

2 COHRED, Health research: a necessity for effectively addressing the health needs of the poor. http://cohred.org/cohred/Home.action


5 O.Akin Adubifa, What is a Poverty Reduction Strategy without Science and Technology”, ATPS Special paper Series No. 18


8 The World Bank prepares a Country Assistance Strategy (CAS) for active borrowers from the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD). The CAS takes as its starting point the country’s own vision for its development, as defined in a Poverty Reduction Strategy Paper or other country-owned process. Oriented toward results, the CAS is developed in consultation with country authorities, civil society organizations, development partners, and other stakeholders. The purpose of the CAS is to set out a selective program of Bank Group support linked to the country’s development strategy and based on the Bank Group’s comparative advantage in the context of other donor activities. CASs are designed to promote collaboration and coordination among development partners in a country.


10 The World Bank sets the poverty lines of 1$ a day and 2$ a day (more precisely $1.08 and $2.15 in 1993 Purchasing Power Parity terms). It has been estimated that in 2001, 1.1 billion people had consumption levels below $1 a day and 2.7 billion lived on less than $2 a day. Measuring Poverty http://web.worldbank.org/WSBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPRSPS/0,,menuPK:384209--pagePK:148956--piPK:159310--theSitePK:336992,00.html

11 International Labour Organization.


14 O.Akin Adubifa, What is a Poverty Reduction Strategy without Science and Technology”, ATPS Special paper Series No. 18


16 World Health Organization Regional Office for the Western Pacific Primary Health Care Review Project, Region Specific Report, August 2002

17 Wagstaff, Adam CMH Working Paper Series Paper no. Wg1 : 5 Poverty and Health

18 Uganda Poverty Reduction Strategy Paper, August 2005, p.128


20 Wagstaff, Adam CMH Working Paper Series Paper No. WG1: 5 Poverty and Health


22 Murphy, Kevin M and Robert Topel, “Medical Research, what’s it worth?” First Quarter 2000, The Milken Institute Review
The %GDPs identified here range in year from 1998-2003 and countries are organized in alphabetical order (from Albania to Zambia). The GDP identified for Nicaragua is for health and education. Although all names are not visible on the chart above, the countries have been shown in alphabetical order, from Albania to Yemen. Data on public health expenditures as a percentage of GDP from 2002 is available on the World Bank website.
84 Cape Verde Poverty Reduction Strategy Paper, p. 98.
95 Vietnam Poverty Reduction Strategy Paper, 2003, p.60
111 PRSP of Madagascar, p. 139
112 PRSP of Cambodia, p.224
113 PRSP of Rwanda, p.48
114 PRSP of Lesotho, p. 127
115 PRSP of Malawi, p. 65
116 PRSP of Bosnia-Herzegovina, p. 175
Since this research project commenced in fall 2005, Nigeria completed a PRSP in December 2005 that did not fall within the scope of the project.

