



CMH Working Paper Series

Paper No. WG6 : 6

Draft for Discussion Only

Title

Structural Adjustment and Health:

A literature review of the debate, its role-players
and presented empirical evidence

Authors

Anna Breman, Carolyn Shelton

E-mail: annabreman@hotmail.com

E-mail: cshelton@worldbank.org

Date: June 2001

TABLE OF CONTENTS

1. Introduction.....	3
2. The debate.....	4
2.1 Timeframe: how, why and when the debate started.....	4
2.2 Major role-players and their arguments.....	4
2.3 The range and trends of the debate over time.....	5
3. Theoretical framework to explain how structural adjustment may affect health outcomes.....	8
3.1 Policy mechanisms through which structural adjustment may affect health outcomes.....	8
3.2 Effects of economic recession versus effects of structural adjustment.....	9
4. Empirical evidence.....	9
4.1 Variables/indicators.....	10
4.2 Positive versus negative studies.....	12
4.3 Case studies versus cross-country studies.....	13
4.4 Studies by region.....	13
4.5 The authors.....	14
5. Conclusions.....	15
6. Annex 1: Summary Table Literature Review.....	17
7. Annex 2: Summary Table Literature Review - Empirical findings....	41

1. Introduction

Do structural adjustment programs cause poor health outcomes? Are structural adjustment programs responsible for improved health indicators? Does reduced spending in the health sector have a direct impact on infant mortality? These and other questions surrounding the relationship between health and structural adjustment programs have been highly debated for over ten years. This paper will identify the major players in the debate, their arguments and track changes in the debate over time.

A charged debate on the effects of structural adjustment on health was launched in the mid-1980s. The debate has focused on issues such as the impact of adjustment on government spending for health care services, the quality of care and rates of child and infant mortality. Articles presenting empirical evidence of effects of structural adjustment on health outcomes are of particular interest. An in-depth analysis of the empirical literature will clarify key questions in the debate. This review was also carried out to be used as a 'case study' of how empirical evidence is used in debates regarding the challenges and opportunities for Development Assistance in Health (DAH).

Structural adjustment refers to a set of policy advice given to developing countries by international agencies, mainly the World Bank and the International Monetary Fund (IMF), but also other donor agencies like USAID. The objective of structural adjustment programs (SAPs) has been to enhance economic growth through macroeconomic stability and elimination of market distortions. These policies are controversial for several reasons. Developing countries have had to implement recommended policies in order to receive grants or loans from donor agencies (conditional lending). SAPs have also been criticized for having adverse effects on health outcomes, especially for the poor.

We have undertaken a desk review of literature gathered from sources relevant to structural adjustment and health. Through extensive searches on economic and medical databases (Econlit, Jolis, First Search, Medline, PubMed), we identified 76 relevant articles to be included in the review. A summary of the information from those articles is presented in Annex 1. Furthermore, among these articles, we identified 28 that present empirical evidence. Annex 2 includes a summary of the articles, outlines the major trends and compares the results of different studies.

This report synthesizes the findings from the literature review and is organized as follows: first, the debate, the role-players, their main arguments and trends in the debate are discussed. The second section summarizes the main arguments in the debate by presenting a framework illustrating the causal arguments for how structural adjustment may affect health outcomes in developing countries. The third section summarizes and analyzes the empirical evidence, and a final section draws conclusions and lessons from the review.

2. The debate

2.1 Timeframe: how, why and when the debate started

Structural adjustment programs were first implemented in the early 1980s. The debate began with the concern that structural adjustment would have the strongest impact among the poorest and most vulnerable groups of the population. Health workers saw a tendency for public health improvements achieved over the past decades to be reversed. Since health is cumulative over the lifecycle, setbacks in nutrition and health cannot be recovered later on in life when the economy recovers. The people starting the debate did not demand that structural adjustment should come to a halt. They wanted the programs to be implemented in such a way that the negative impacts on health and other social outcomes were mitigated. The debate has been alive for 15 years, and there is no sign that it may slow-down. New empirical evidence continues to be presented.

In 1997, Cornia, Jolly and Stewart published their often cited book “*Adjustment with a Human Face*”, and the debate took off. This book consists of two volumes, the first one “*Protecting the Vulnerable and Promoting Growth*”, discusses the impacts of structural adjustment on social welfare, especially for children. The second volume, “*Country case studies*,” presents empirical evidence from 10 countries where adjustment programs have been implemented. The authors are not opponents of SAPs (although that is often how the book is interpreted and referred to). The case studies show both positive and negative health outcomes from SAPs and based on these observations, the book focuses on *how* to implement SAPs in order to protect vulnerable groups. The authors suggests, for example, that the poor and children should be exempted from user fees, and that social protection programs should be implemented to mitigate the cost of increased unemployment.

2.2 Major role-players and their arguments

Major players in the debate include the World Bank and IMF, United Nations organizations, mainly UNICEF, representatives of academic institutions and non-governmental organizations. The various arguments represented in this literature review illustrate how the respective disciplines and motives of each player are reflected in their perspective on SAPs. Being responsible for the design and implementation of structural adjustment programs, the World Bank and IMF are key players in the debate. The World Bank and IMF first implemented SAPs in the early 1980s in response to the debt crisis in developing countries. Opponents of SAP policies contended that the World Bank and IMF ignored the establishment of social safety nets for the poorest groups. Bank publications began to respond to this criticism as early as 1990.

An internal review of Bank and IMF policies from 1980-1987 prompted the acknowledgment that SAPs must address negative social outcomes and identify ways for borrower countries to take the poor into account during adjustment periods (McCleary 1990). One article published by the World Bank (Pitt 1993) presented a theoretical framework for measuring health outcomes in the context of SAPs. The author concluded that a disregard for health outcomes could lead to a serious underestimation of positive returns for investing in health.

Another Bank case study of Cote d'Ivoire (Grootaert, 1994) focusing on the second half of the 1980's showed that health expenditures were protected during structural adjustment and economic recession. Further examination of resource allocation in the health sector showed that health spending for curative and preventive care was disproportionate. Curative consultations among women in poor households dropped by almost half during the adjustment period yet preventive care visits increased among the poorest. The author concluded that even though health expenditures were protected, large disparities in access to curative and preventive care among the poor and non-poor were masked by little or no change in total health expenditure during the adjustment period.

The United Nations Development Program published studies that were neither anti-SAP nor pro-SAP. Their argument in the debate was not whether a country should adjust but how. One UNDP study found that productive feedback between macro-economic policies and social outcomes was just beginning to emerge in the mid-1990s (Taylor and Pieper, 1996). The main argument was that significant positive and negative feedback between the functions of social indicators, economic growth, income and consumption could either lead to vicious or virtuous circles.

Authors from academic and research institutions and non-governmental organizations represented a wide variety of disciplines ranging from public health and nutrition, economics and gender studies. As a result, their arguments and opinions contributed to differing perspectives in the debate. For example, one article, published in a journal on human rights, examined the World Bank's approach to poverty reduction from the 1970s through the early 1990s (Amobi 1993). The article aimed to put structural adjustment policies in its political and historical context. The author concluded that although the Bank's actions showed a strong commitment to poverty reduction, when SAPs were implemented in the 1980s, the policy focus shifted towards mitigating the economic crisis and the poor were forgotten.

Another article was published in a book on women's issues and the economic crisis. The author contended that the macroeconomists failure to account for unpaid human labor as a variable for successful SAPs represented a male bias towards women's productive roles in society (Elson 1992). The conclusion argued that a transformation of both public and private sectors in SAP countries should be responsive to women's ability to become successful producers of society.

2.3 The range and trends of the debate over time

There are three main trends in the debate; the opening discussion on adjustment with a human face, the harsh criticism towards structural adjustment that followed and the World Bank and IMF response, and third, the present debate, which is more characterized by empirical studies presenting new evidence. As already mentioned, the debate started with a number of articles supporting arguments in favor of 'adjustment with a human face.' Structural adjustment was regarded as necessary in order to come to terms with the difficult economic situation that many developing countries faced in the beginning of the 1980s. The articles were generally theoretical and offered suggestions on how to

implement adjustment without creating adverse effects on health (See for example, Cornia et al. 1987, Hill and Pebley 1989, Amobi 1993).

At the beginning of the 1990s, articles defending World Bank and IMF strategies began to appear in academic journals and in World Bank publications. They generally acknowledged that structural adjustment may have had a negative impact on health (and education) and suggested how the problem should be dealt with. Several articles also made an effort to empirically investigate the effects of structural adjustment (McCleary 1990, Suh and Yeon 1992, Pitt 1993, Serageldin et al. 1994). It is noteworthy though that there are relatively few articles that are official World Bank/IMF documents. A considerable number of articles are authored by World Bank/IMF staff, but published as independent articles.

At the same time, an increasing number of articles strongly opposed to structural adjustment were published. They were often more normative than theoretical and typically were based upon findings in other articles. Editorial notes in prestigious medical journals, such as *The Lancet* and *JAMA*, severely criticized structural adjustment (See, for example, *The Lancet* (editorial) 1990 and 1994, Logie and Woodroffe 1993).

The nature and progress of the debate seemed to influence the World Bank and IMF, and strong arguments for 'adjustment with a human face' led to changed policies. Social funds were established to mitigate the negative impacts on health and education. SAPs were adapted to be more responsive to the needs of the poor.

The debate changed focused in the late 1990s as the World Bank and the IMF adapted their policies. The World Bank supports the provision of basic health services to poor people for free or where specific community condition warrant, at lowest possible cost. In the case of certain interventions that have large benefits for the community and vulnerable groups, such as immunization and maternal and childcare, the Bank discourages user fees. User fees remain controversial, but at present the World Bank is mainly criticized for rejecting health as a human need and a social right, and for promoting private provision of health care. (see, for example, Sen and Koivusalo 1998, Laurel and Arellano 1996). One author goes as far as stating that World Bank policies lead to "Hell for All" instead of "Health for All" (Antia 1995).

Adjustment programs have been employed for a sufficiently long time to make it worth investigating their impact on health outcomes. Thus, articles presenting empirical evidence have become more frequent. It is interesting to note that the literature has become less negative over time (see, for example, Mwabu 1996, Basset et al. 1997, Van der Gaag and Barham 1998, Garenne and Gakusi 2000). The empirical data show both positive and negative impacts on health. For example, health expenditures have not declined as much as was first assumed. It seems as if many countries have tried to protect expenditures on health and other social services at the expense of cutbacks in other sectors, such as infrastructure and defense (Van der Gaag and Barham 1998).

Outcomes related to the nature of the article

In order to reveal trends in the debate, we classified a total of 76 articles in four categories according to their main findings: positive, negative, neutral and both positive and negative. In this context, positive (negative), has a broad definition referring to the authors' opinions on structural adjustment. Furthermore, we divided them into three categories according to their nature: normative, theoretical and empirical. Some of the articles belong to one or more of these categories, but we have focused on the main content. For example, articles that are mainly theoretical and present empirical evidence from other studies are classified as theoretical, while an editorial note will be classified as normative.

Among the 76 articles that we have identified, 45% are negative, 8% are positive, 20% are neutral and 27% are both positive and negative. It is clear that opponents of structural adjustment that believe, or find, that adjustment will have negative outcomes on health, dominate the debate. An interesting pattern is revealed if we map the positive and negative aspects to the nature of these articles. All but one of the normative articles are negative. The theoretical ones are mainly neutral, discussing possible positive and negative impacts of adjustment, but without taking "sides." The empirical articles mostly find both positive and negative effects of adjustment on health outcomes. There is no category with a majority of positive articles. However, a closer examination of the positive articles reveals that they are all empirical studies.

Outcomes related to regional differences

57 of the 76 articles are related to a certain country or region. We divided the articles into 5 groups according to the country/countries investigated: Africa, Asia, Latin America-Caribbean, Middle East-North Africa, and "global". Global refers to cross-country studies that comprise countries from at least two of these regions. Africa is heavily over-represented. Nearly half (47%) of the country specific or regional studies are from Africa. 16% are studies from Latin America, and 16% from Asia. 2 studies (4%) are specific for the Middle East – North Africa region. The remaining 18 % of the articles are global.

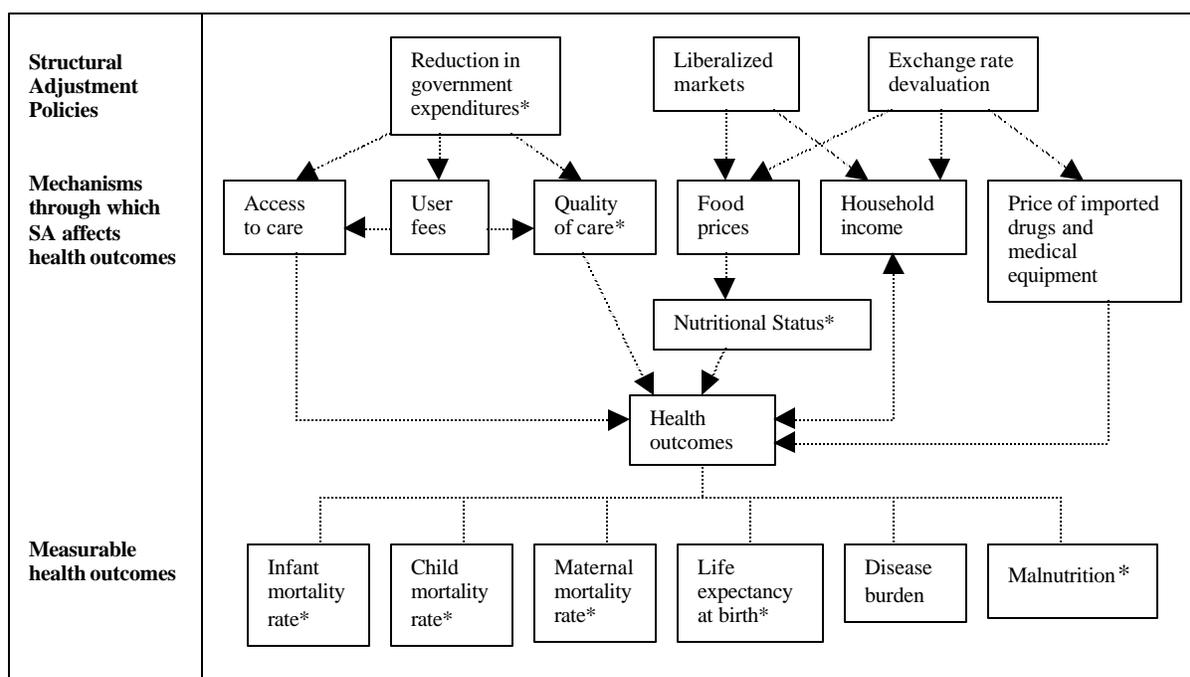
Jayarajah, Branson and Sen (1996) find in their cross-country study of 53 adjusting countries that health expenditures and health outcomes have improved in Asia and Latin America while outcomes have deteriorated in Africa and the Middle East – North Africa region. Interestingly, our review of studies does not illustrate the same pattern. In Africa and Asia, the vast majority of the studies are negative. In Latin America and Middle East – North Africa, the outcomes are both positive and negative. These observations, however, comprise all types of articles, normative as well as theoretical and empirical. In Asia, it is clear that the negative articles are normative while the empirical ones are more often both positive and negative. A further discussion on regional differences will be made in the empirical sections of this paper where we will also examine the variables used to determine health outcomes.

3. Theoretical framework to explain how structural adjustment may affect health outcomes

3.1 Policy mechanisms through which structural adjustment may affect health outcomes

The objective of this section is to summarize the relationships that various authors have found in their examination of the effects of structural adjustment on health. The aim is to show the breadth and variety of the theoretical frameworks employed in the literature as well as to summarize which elements of this framework have been put to more or less empirical examination. (See, for example, Pitt 1993, Peabody 1996, Musgrove 1997, Sen and Koivusalo 1998). Figure 1 depicts the possible relationships between adjustment policies and health outcomes. The section is organized around three main policies of structural adjustment: reduction in government expenditure, freer (liberalized) markets, and exchange rate devaluation. The impact on health depends on how policies affect access to health care, food prices, household incomes and infrastructure.

Figure 1: Theoretical framework



Source: Pitt 1993, Peabody 1996, Musgrove 1997, Sen and Koivusalo 1998.

* Variables estimated in the empirical studies on structural adjustment and health. See section 4.1 for further details and outcomes.

Structural adjustment aims to improve macroeconomic performance and enhance economic growth. If a country is facing a budget deficit, it is likely that *cutbacks in government expenditure* will take place. If the cutbacks affect expenditures on health and infrastructure, the health sector and health outcomes may be affected. User fees are often introduced as a cost-recovery measure to compensate for cutbacks in health expenditures (Pitt 1993). *Liberalized markets* affect food subsidies and prices, but also the price of other commodities that will affect household incomes and thus their ability to pay for health services (Pitt 1993, Sen and Koivusalo 1998). *Exchange rate devaluation* will

affect the prices of imported goods such as medicines and medical equipment. At the same time, exports will be facilitated, and for example, export crop farmers are likely to see their income rise (Peabody 1996). These mechanisms will affect access to, the quality of, and the ability to pay for health care. How these mechanisms are interrelated and may affect health outcomes are depicted in figure 1.

3.2 Effects of economic recession versus effects of structural adjustment

In discussing the results of structural adjustment, it is crucial to distinguish between the effects of economic recession and structural adjustment. Countries adopt structural adjustment programs in order to deal with economic crisis. It is not clear whether negative effects on health outcomes should be attributed to adjustment rather than to economic mismanagement, sheer bad luck or other factors causing the crisis. Focusing on adjustment implies that the alternative would be not to adjust rather than how to adjust (Musgrove 1997).

Authors have dealt with this problem in different ways. Some simply say that it is impossible to distinguish between the effects of adjustment and the effects of economic crisis. Others ignore the problem and a third group make an effort to separate the impacts resulting from economic crisis and those of adjustment. The latter approach examines health outcomes before and after adjustment was implemented or compares adjusting to non-adjusting countries.

Furthermore, the entire price changes in the aftermath of adjustment cannot be attributed to adjustment alone. Price fluctuation is generally common in developing countries. Other factors such as war, weather, crop failure, world market prices also influence prices (Pitt 1993). To empirically investigate the relation between structural adjustment and health, the problem of distinguishing between economic recession and adjustment, and other factors that may influence health outcomes must be taken into consideration.

4. Empirical evidence

This section contains a detailed analysis of the 28 articles presenting empirical evidence of the correlation between structural adjustment and health (see Annex 2). The studies in this section differ substantially from each other, and are therefore not directly comparable. Not only do they apply different methods and study different regions, but they also use a wide range of variables. We have therefore conducted a more in-depth study of the empirical articles. This section aims to first compare the variables used in different studies. Which are the most common variables and what do they tell us about the effects of structural adjustment on health? A discussion of comparable outcomes; trends and differences between the articles with positive outcomes versus articles with negative outcomes will follow. Finally, outcomes are examined by region and by author. Do outcomes depend on the person conducting the study?

Data and method

The 28 empirical studies are well conducted with clearly defined data sources. Approximately one third of our studies apply regression analysis to evaluate the correlation between variables that are specific for structural adjustment and health outcomes. Another third use descriptive analysis of the data, and the last third employ other statistical methods (for example, multivariate analysis to check for significance in changes) or a combination of several methods.

There are three main sources of data: government statistics from the countries investigated, for example “Vietnam Living Standard Survey Data (VNLSS)”, statistics from international organizations like the World Bank, the IMF and the UN, and data collected by the researchers. A surprisingly large number of studies (8/28) have collected their own data through focus group discussions or household surveys. The most common data sources are the international organizations, mainly the World Bank.

4.1 Variables/indicators

The two most common variables investigated are government health expenditures and child mortality. Changes in the level of health expenditures may affect health outcomes if it affects access to and quality of health care. Child mortality is a direct indicator of health status. Maternal mortality, life expectancy and malnutrition are other measurements of health outcomes that have been investigated in several studies. Finally, we have a body of literature that have tried to measure changes in quality of health care under structural adjustment.

Health expenditures

Health expenditures are likely to affect health outcomes, but it is not a direct measure of health status. Some authors have argued that health outcomes can be improved with a constant level of government expenditure on health through enhancing the effective use of existing funds (Serageldin et al. 1994). Restricting government expenditure would fuel the process toward better allocation of existing resources. Most authors, however, are of the opposite opinion. Health expenditures per capita are extremely low in developing countries and to further restrict them would be devastating.

Four different measurements of *health expenditures* are used (number of studies using this measurement):

- Per capita expenditure (4)¹
- Real total expenditure (3)²
- Percentage of GDP (3)³
- Percentage of total government expenditure (6)⁴

¹ Van der Hoeven and Stewart 1993, Serageldin et al. 1994, Van der Gaag and Barham 1998.

² Thiesen 1994, Sahn and Bernier 1995, Jayarajah et al. 1996.

³ Woodward 1992, Van der Hoeven and Stewart 1993, Serageldin et al. 1994.

⁴ Suh and Yeon 1992, Van der Hoeven and Stewart 1993, Thiesen 1994, Jayarajah et al. 1996, El-Ghonemy 1998, Van der Gaag and Barham 1998.

There is evidence of both increasing and decreasing health expenditures. Authors investigating more than one country find evidence of both increase and decrease in health expenditures depending on the country and the timeframe investigated. There is no general conclusion to be drawn. Whether or not health expenditures have been protected seems to depend on the willingness of the government to prioritize the health sector, the depth of the economic crisis and the success or failure of the SAP.

Child mortality

Child mortality can be divided into two sub-categories (number of studies):

- Absolute decline (6)⁵
- Rate of decline (9)⁶

Child mortality is a crucial indicator of health status. Health care for children is more price sensitive than for adults, and child health is therefore likely to be an early indicator of deteriorating health status of a population. The empirical studies show that child mortality has declined in absolute terms in all investigated countries, although there are some countries where there are signs of increasing child mortality. However, there is not yet reliable data to support this (Cruickshank 2000). The rate of decline is much more disputed. Two studies indicate a slowdown in the rate of decline, two show an increase and three find both. Two studies (Hill and Pebley 1989, Garenne and Gakusi 2000) conclude that there is no evidence that structural adjustment has either slowed or hastened the pace of decline in child mortality. These two cross-country studies focus solely on child mortality rates and use regression analysis to assess the effects of structural adjustment.

Maternal mortality and **life expectancy at birth** are more often measured in absolute terms than in rates of decline. The data show that maternal mortality (Suh and Yeon 1992, van der Hoeven and Stewart 1993, Kahn 1999) has declined and life expectancy increased (Anderson and Witter 1991, Mwabu 1996, Onyeiwu et al. 1997). Whether or not the rate of improvement has increased or slowed down is generally not known.

Malnutrition is the third most investigated variable. The outcomes are negative. Malnutrition appears to have increased under structural adjustment. Caloric intake has decreased in all studies of malnutrition (see, for example, Cornu 1995, Biljmakers et al. 1996, Onah 2000). Wasting (weight-for-height), which is considered as a measurement of short-term changes in nutritional status has increased while stunting (height-for-age), a long-term indicator, has improved (Cornu 1995, Biljmakers et al. 1996). The authors interpret this result as evidence of worsened nutritional status as a result of structural adjustment.

⁵ Suh and Yeon 1992, Van der Hoeven and Stewart 1993, Anderson and Witter 1994, Serageldin et al. 1994, El-Ghonemy 1998, Kahn 1999.

⁶ Hill and Pebley 1989, Woodward 1992, Thiesen 1994, Jayarajah et al. 1996, Mwabu 1996, Onyeiwu et al. 1997, El-Ghonemy 1998, Van der Gaag 1998, Garenne and Gakusi 2000.

Several studies attempt through focused group discussions with health workers and patients to assess how structural adjustment has affected the **quality of healthcare**. The overall pattern is a decline in the quality of care. One study from Pakistan finds that the number of people per doctor or nurse has decreased, which would imply better access to health personnel (Kahn 1999). However, seven other studies on this topic find a worsened situation with less health personnel per capita and severe deterioration in the quality of health care (see, for example, Biljmakers et al. 1996, Lundy 1996, Onah 2000 Israr 2000). Furthermore, two studies examine how health expenditures are divided between preventive and curative care. In the past, most developing countries have had a strong bias toward curative care at the expense of more cost effective preventive care. Both studies conclude that this bias has worsened rather than improved under structural adjustment (Sahn and Bernier 1993, 1995). In many instances, the lack of change that the authors could verify was matched by government pronouncements and plans suggesting that change was imminent.

4.2 Positive versus negative studies

We have reused the classifications from the previous section for the outcomes of the 28 empirical studies; positive (+), negative (-), both (+/-) and neutral (0). However, the definition of the categories is narrower in this section. Positive (negative) implies that the *empirical evidence* shows a positive (negative) effect of structural adjustment programs on health outcome(s). The authors' opinions are not relevant; the study must find evidence of negative outcomes to be categorized as a negative study. One empirical study was classified as neutral. The study examines fertility decline in Nigeria as a result of structural adjustment and economic recession. The authors find a significant decline in fertility in Nigeria, but whether or not this fertility decline is a desirable outcome is not clear.

Upon examination of all 76 studies, an overwhelming majority was negative towards structural adjustment. As shown in Table 1, a different pattern is revealed among the empirical studies. An almost equal number of studies show either positive effects (29%), both positive and negative effects (32%), or negative effects (35%). It is not possible to conclude that the empirical evidence show purely negative or positive health outcomes resulting from structural adjustment. Furthermore, there is no evidence that more recent studies are more positive/negative than previous ones. The outcomes seem to depend on the variables investigated, the country or region and the method used.

Table 1: Nature of study related to outcomes

Type of study (Number of studies)	Outcomes			
	Positive (%)	Negative (%)	Both positive and negative (%)	Neutral (%)
All studies (76)	8	45	27	20
Empirical studies (28)	29	35	32	4
Case studies (14)	21	50	21	8
Cross-country studies (14)	36	21	34	0

4.3 Case studies versus cross-country studies

14 studies are country specific case studies, and 14 are cross-country studies. The following ten countries are represented in the case studies (number of studies in parentheses if more than one): Brazil, Cameroon, Congo (2), Cote d'Ivoire, Jamaica (2), Nigeria, Pakistan, South Korea, Vietnam, and Zimbabwe (3)⁷. A strong negative trend dominates the case studies; 50% find negative outcomes related to structural adjustment and 21% show positive outcomes. Out of 14 case studies, eight are from Africa. The African case studies mainly show negative effects (75%) of structural adjustment. The remaining 25% show both negative and positive effects.

The cross-country studies show a different pattern (see Table 1). As a result of analyzing a larger number of countries, more studies are both negative and positive. The number of studies indicating positive outcomes (36%) is also significant compared to the country-specific studies. It is interesting to closer examine the method used in these cross-country studies. The positive studies either investigate one single variable such as child health (Hill and Pebley 1989, Garenne and Gakusi 2000), compare adjusting countries to non-adjusting countries (Van der Gaag and Barham 1998), or conclude that health outcomes have improved in successful adjusters (Mwabu 1996). The negative cross-country studies compare outcomes in different countries, but in one region, Africa, in these cases.

4.4 Studies by region

The overall literature review revealed a negative trend among Asian and African countries while the articles from Latin America-Caribbean and Middle East – North Africa are generally both positive and negative. The objective of comparing different regions is to find out if the empirical evidence reinforces these trends.

15 of the 28 studies were conducted in Africa. 53% of these studies find negative effects of structural adjustment on health, and only 13% find positive outcomes. The data allow us to draw the conclusion that empirical evidence shows that structural adjustment in many cases has had adverse effects on health outcomes in Africa.

There are only three studies from Asia and they are all case studies. It is therefore difficult to draw any conclusions on the effects of structural adjustment on health in Asia. The South Korean (Suh and Yeon 1992) and Pakistani (Kahn 1999) studies are positive while the Vietnamese (Gertler and Litvack 1998) is mainly negative.

Four studies are from the Latin America-Caribbean region. Two of them find both positive and negative health outcomes under structural adjustment. A study from Jamaica found strong negative effects of structural adjustment on the quality of health care (Lundy 1996) while the fourth study (Rios-Neto and de Carvalho 1997) found that health outcomes in Brazil have improved under structural adjustment.

⁷ All three studies of Zimbabwe are made by the same persons within a longer research project.

Only one empirical study conducted in the Middle East – North Africa region was identified among those included in this literature review. This study (El-Ghonemy 1998) is a cross-country comparison of eight countries (Tunisia, Egypt, Morocco, Sudan, Turkey, Mauritania, Jordan and Algeria). The results vary greatly between the different countries showing both negative and positive outcomes.

Finally, there are five empirical studies that cover countries from several continents. These studies are often designed to compare adjusting and non-adjusting countries. It is noteworthy that none of these studies are negative. Two studies found both negative and positive outcomes (Cornia and Stewart 1987, Jayarajah et al. 1996), and three studies are positive (Hill and Pebley 1989, Mwabu 1996, Van der Gaag and Barham 1998).

To conclude this section on regional differences, there are few discernable trends. Africa is the only region where there are a sufficiently large number of studies to identify a trend. Most of the evidence from Africa shows negative health outcomes under structural adjustment. Too few studies in other regions made it difficult to draw any conclusions on the outcomes in these regions. The outcome depends on the variable used in the study, the method and whether or not it is a country specific case study or cross-country study. Mwabu concluded in his cross-country study of 1996 that structural adjustment has had a positive effect on health outcomes if the adjustment program has been successful. Zimbabwe and Jamaica are examples of countries where there is strong evidence of negative health outcomes that can be related to policies adapted as a part of structural adjustment programs. In contrast, South Korea and Brazil are examples of countries with successful adjustment programs, protecting social spending, and improving health outcomes.

4.5 The authors

Having studied the variables used, methods and regional differences, it is equally important to examine if the outcomes vary with the persons or institutions conducting the study. Who are the authors? Are they mainly from developed or developing countries? Are they economists or public health specialists? Is there a bias towards positive outcomes in the studies conducted by World Bank/IMF employees?

More than a third of the studies are conducted by university academics in developed countries. The majority of their studies found negative health outcomes in developing countries under SAPs. A small number of studies (5/28) were conducted by researchers in developing countries. They found positive outcomes as often as negative outcomes of structural adjustment. Another five studies were done in collaboration with researchers in developed and developing countries. Their results are both positive and negative. Finally, an important number of articles were published by World Bank (six) and UN (two) employees. Only in a few cases were those articles written as official documents from these institutions. The authors are often both positive and negative towards structural adjustment. The assumption that World Bank employees would generally find a positive impact on health under structural adjustment cannot be justified in this study. Only one study found negative outcomes of structural adjustment (Grootaert 1994), and two found

positive outcomes (Suh and Yeon 1992, Van der Gag and Barham 1998). 50% of the studies conducted by World Bank or IMF employees found both positive and negative outcomes.

There is no category of authors that are overwhelmingly positive or negative. Therefore, we cannot conclude that the outcomes depend on the author. There is no evidence that researchers in developing countries should be more negative than researchers in developed countries (it is rather the opposite), or that World Bank employees always conduct their studies in such a way that they only find positive outcomes of adjustment.

5. Conclusions

An analysis of the literature comparing empirical, theoretical and normative articles, has illustrated some interesting trends and changes in the debate over time. The most striking trend is that opponents of structural adjustment heavily dominate the debate despite the fact that empirical evidence shows positive outcomes of structural adjustment as often as negative. A significant number of authors support adjustment on the condition that policies are implemented in such a way that it does not adversely affect health outcomes for the poor and most vulnerable groups. It is clear that the nature of the article is often correlated to the authors' opinions. Normative articles are generally negative while theoretical ones remain neutral. The empirical studies present both positive and negative outcomes of adjustment programs.

The regional distribution of the studies shows that Africa is heavily over represented both in the overall literature review and among the empirical articles. The majority of the studies in Africa, whether theoretical or empirical, are negative towards structural adjustment and its effects on health outcomes. It is more difficult to find specific trends among other regions as they are under represented. The results vary widely among countries and there are not enough studies to find any overwhelming trends.

In order to assess health outcomes under adjustment, a wide range of variables have been used. Health expenditures and child mortality are the most common variables. It is important to note that the outcomes differ substantially: health expenditures have declined in some countries and increased in others. Child mortality has declined in absolute terms in all investigated countries, but in some countries there is evidence that the rate of decline has slowed significantly.

Furthermore, case studies, more often than cross-country studies, find negative outcomes as a result of adjustment policies. Case studies seem to be a useful tool to show adverse effects of adjustment while cross-country studies find both positive and negative health outcomes depending on the country. Cross-country studies typically compare adjusting to non-adjusting countries and find that health outcomes and health expenditures have not deteriorated more in adjusting than in non-adjusting countries.

The debate on structural adjustment and health continues as various forms of SAPs remain in place. Although the debate is heavily concentrated with opponents of SAPs, an analysis of the literature included in this review showed that positive or negative results of SAPs are not easily determined. Thus, a fairly large amount of research is being conducted on this subject and new evidence is frequently presented. Although we cannot make definitive conclusions about the impact of structural adjustment on health, it is clear that this debate has helped to draw attention to how adjustment programs may be implemented without creating adverse effects for the poor.

Annex 1
Summary Table Literature Review

Author	Title	Methodology (Case study: cross country, regional or country specific)	Summary – empirical findings	Date	Source
Cornia, G. A. Jolly, R. Stewart, F.	Adjustment with a Human Face	Both theoretical and case studies	This book consists of two volumes. Volume 1, <i>Protecting the Vulnerable and Promoting Growth</i> , discusses the impacts of structural adjustment on social welfare, especially for children, and makes suggestion to growth-orientated adjustment with a “human face”. The second volume, <i>Country Case Studies</i> , presents empirical evidence on the effects of SAP. This book started the debate on structural adjustment. It does not oppose the SAPs (even though that is how its often has been interpreted and referred to), it discusses <i>how</i> SAPs should be implemented. The objective is to protect vulnerable groups, drawing on UNICEF work and experience from the beginning of the 1980s.	1987-1988	Clarendon Press, Oxford
Cornia, G. A. Stewart, F	Country Experience with Adjustment	Case studies from ten countries: Botswana, Ghana, Zimbabwe, the Philippines, South Korea, Sri Lanka, Brazil, Peru, Chile and Jamaica.	The article summarizes the findings from the 10 case studies, which all focused on the relation between economic development and the health and welfare of vulnerable groups. After reviewing the different experiences that the countries present, the authors conclude that the shocks that have made adjustment necessary has been exogenous. They see growth-oriented adjustment as necessary, but not sufficient. In the short-medium term, the well-being of vulnerable groups can be protected with appropriate targeted programs. That was the case in Botswana and South Korea. Furthermore, the programs targeting the poor are relatively inexpensive, but foreign financing is often needed.	1987-1988	Book: <i>Adjustment with a Human Face</i> . Clarendon Press, Oxford
Mosley, W. Henry Jolly, Richard	Health Policy and Programme Options: Compensating for the Negative of Structural Adjustment	Theoretical	The paper examines strategic options that may be available to ministries of health to protect vulnerable groups during periods of economic recession and structural adjustment. There is evidence that high level of achievement in child health do not require heavy investments in the health sector. Health status in a country is constrained far more by the nature of social institutions, including health services, than by lack of financial resources. Thus, NGOs and political leadership have a vital role to play in mobilizing the population to fully participate in health programs. A primary health care strategy incorporating such basic elements as immunizations, oral rehydration therapy, and essential drugs covering the entire population will lead to substantial improvement in health, and can be implemented at a low cost.	1987-1988	Book: <i>Adjustment with a Human Face</i> . Clarendon Press, Oxford

Stewart, Frances	Recession, Structural Adjustment and infant health: the need for a human face	Summarizes the book: <i>Adjustment with a Human Face.</i>	The economic crises and structural adjustment programs have had an adverse effect on child health and nutrition due to higher food prices, cutbacks in expenditures on health, falling real wages and higher unemployment. Malnutrition is reported to increase in 23 countries, the IMR is increasing in some countries and the rate of decline is decelerating in others. The author argues that adjustment with a human face is possible, and suggests solutions.	Jan-Feb 1989	Transactions of the Royal Society of Tropical Medicine and Hygiene
Le Franc, Elsie	Socio-economic Determinants of Health Status	Mainly theoretical Presents empirical evidence from other studies.	This paper discusses the determinants of health status in a Caribbean context. The structural adjustment policies affect health status directly and indirectly. The author presents evidence from other studies that show a negative impact of the SAPs on the public health delivery system.	June 1989	Social and Economic Studies, Vol. 38, No. 2, pp. 291-305
Hill, Kenneth Pebley, Anne R.	Child Mortality in the Developing World	Cross-country study	The purpose of the article is to examine the empirical support to why the pace of child mortality decline seems to have slowed down. Levels, trends, and age patterns of child mortality in the developing world are reviewed. The data do not support the contention that the pace of child mortality decline has slowed substantially in the 1970s or 1980s. Absolute declines may have slowed slightly in Asia, where a number of countries have already achieved low child mortality, but declines in the Americas have maintained a steady pace. The authors find that the SAPs do not seem to have slowed mortality declines substantially, if at all. Individual exceptions exist, however. It is also difficult to distinguish between the effects of SAPs and of the economic crisis that made SAPs necessary.	Dec 1989	Population and Development Review, Vol. 15, No. 4, pp. 657-87
Cornia, Giovanni Andrea	Investing in Human Resources: Health, Nutrition and Development for the 1990s	Theoretical, Empirical data cited from various studies	SAP policies limiting government expenditures have contributed to the breakdown of health & nutrition standards. Author proposes that successful approaches for interventions in health, water and nutrition used in the last 10-15 years that should be incorporated into SAPs. Despite limited government resources for health & nutrition, new cost-effective policy approaches with an emphasis on community participation and social mobilization have the capacity to improve the status of health & nutrition. Empirical evidence on real health expenditures per capita from 57 'adjusting' countries is presented. The case of Zimbabwe is used to show how, in the face of economic and environmental crises, continuing programs for primary health care managed to improve health outcomes along with support from NGOs and donors. The author concludes that although health & nutrition programs are generally accepted as necessary and beneficial to the overall well-being and productivity of a population, economists continue to fail to consider health and nutrition essential to development.	1989	Journal of Development Planning; Human Development in the 1980s and Beyond, UN No 19

No author, Editorial	Structural adjustment and health in Africa	Purely argumentative	Discusses the World Bank policies regarding structural adjustment and health. There is an implicit contradiction in the Bank policies when they at the same time call for reductions of government expenditure and doubled resources on social services. The Bank proposal to encourage a greater role for the private sector in health spending and to introduce user fees is also severely criticized.	April 14, 1990	The Lancet, vol. 335, pp. 885-886.
McCleary, W. A.	Policy Implementation Under Adjustment Lending	Cross-country study of 15 of 51 countries that adopted adjustment policies between 1980-87.	This paper presents the World Bank and the IMF view of the experience from the first eight years of adjustment lending (1980-87). Regarding social outcomes of the programs, it is recognized that something has to be done. There are three identified ways in which the Bank can help borrowers to assist the poor during adjustment. First, SAPs themselves can be designed to prevent the poor from suffering unnecessarily. Second, when unsustainable fiscal deficits make it essential to reduce government spending, public expenditure, which disproportionately benefits the poor, should be maintained wherever possible, and other expenditure better targeted. Third, where adjustment has immediate costs for identifiable groups, short-term compensatory programs should be encouraged.	Sept 1990	<i>The Path to Reform: Issues and Experiences</i> , The World Bank, Washington, D.C.
Suh, Sang-Mok Yeon, Ha-Cheong	Social Welfare during the Period of Structural Adjustment	Case study of Korea Statistics on health expenditures, both on government level as well as household data.	Examines the trend in social welfare during the time of structural adjustment, as well as the relationship between structural adjustment and social welfare. Focuses on the period from the late 1970s to 1986. Social welfare showed a steadily increasing trend during this time. It rose from 18.4% in 1974 to 30% in 1986. The government significantly increased its health care expenditures. The provision of low-cost or free health services was important in upgrading the status of the poor. The government also introduced a medical insurance company and invested in primary health care. Nutritional intake improved. Infant and maternal mortality rates fell. The authors argue that social welfare and structural adjustment may be complementary and that it is the case in Korea.	1992	Book: Structural Adjustment in a Newly Industrialized Country: The Korean Experience, A World Bank Book

Woodward, David	Debt, adjustment and poverty in developing countries. Volume 2. <i>The impact of debt and adjustment at the household level in developing countries.</i>	Both theoretical and empirical. Cross country data from Africa.	The author finds that the standards of health and education have declined more or improved less in adjusting and heavily indebted countries than elsewhere, at least in Africa. The most visible effect of adjustment on health services is on the supply side. However, adjustment may also have a critical impact on the need for health services and on the demand for health care. It appears that adjustment in response to debt problems in the 1980s has failed to protect health and education expenditure. The increased dependence of adjusting countries' health sectors on external support also raises potentially serious long-term problems in some cases. Finally, the author criticizes the concept of cost-recovery as an efficient means of generating revenue. It does not improve the efficiency of the health sector and it reduces the access to health services, especially for the poor.	1992	Printed in association with Save the Children, St. Martin's Press, New York.
Elson, Diane	From Survival Strategies to Transformation Strategies: Women's Needs and Structural Adjustment	Theoretical	The article claims that successful SAPs must include a transformation of social relations in order to achieve improvements in the lives of the poor. Transformation is necessary because current SAPs do not address economic and power inequalities between men and women at the household level. The author contends that SAPs convey a male bias in their terminology and design. SAP macroeconomists do not view human labor inputs as a "production" resource subject to upkeep requirements like food, shelter and health. The refusal to account for unpaid labor as a variable towards successful SAPs is a reflection of male bias since women most often contribute to unpaid production. SAP terms like "efficiency" are not well defined and measures of its success do not take cost shifts to the unpaid sector into account. Author argues that for SAPs to have a positive impact in the household, more resources must be made available to women and fewer privileges given to men.	1992	Chapter from book: Unequal Burden: Economic Crises, Persistent Poverty and Women's Work, pp. 26-48

Safa, Helen I. And Peggy Antrobus	Women & the Economic Crisis in the Caribbean	Cross country comparison of health expenditures and outcomes in Jamaica and the Dominican Rep. - Empirical data	The article discusses negative impacts of SAPs on women in the Caribbean. Reductions in social expenditures in Jamaica and the Dominican Republic have resulted in increased and sustaining negative health outcomes. In Jamaica, expenditures in health, education and social security were reduced by 44% from 1981 to 1986. Malnutrition among children under 4 years increased from 38% in 1978 to 41% in 1985. Increases in the number of anemic pregnant women rose from 23% in 1981 to 43% in 1985. IMR increased from 16 in 1980 to 18 in 1987. In the Dominican Republic, health expenditures declined from 16.41 pesos per capita to 12.99 pesos during the 1980s. Inadequate supplies of medical equipment and drugs have further weakened the health system during the SAP period. Author concludes that cost-effective interventions aimed at reducing incidences of IMR, MMR and malnutrition can be achieved even in the context of SAPs. Health outcomes will not be improved until women are acknowledged as a vulnerable group and action is taken to address their needs.	1992	Chapter from book: Unequal Burden: Economic Crises, Persistent Poverty and Women's Work, pp. 49-81
Cornia, Andrea Giovanni	Investing in People: a much needed new focus for SAPs.	Summary of SAPs and imbalance of social sector spending	Argues need for greater government involvement of fund redistribution and better quality of international aid to developing countries with focus on PHC, education and water.	1992	From book "Africa's Recovery in the 1990's: from Stagnation and Adjustment to Human Development
Chinemana, Frances Sanders, David	Health and Structural Adjustment in Zimbabwe	Case study of Zimbabwe	Gives a broad overview of the Zimbabwean health care system and discusses the likely impact of the, at that time, recently introduced structural adjustment program. The authors conclude that they cannot make a prognosis on how the SAP will affect health care outcomes, and that empirical research must be done to determine this.	1993	Book: Social Change and Economic Reform in Africa, The Scandinavian Institute if African Studies

Amobi, Ifediora C.	The World Bank Approach to Poverty Reduction	<p>“Historical” Summary of World Bank poverty policies</p> <p>Puts structural adjustment in its political and historical context.</p>	This paper examines chronologically, the World Bank approach to poverty alleviation over the period 1972-92. In the 1970s, the Bank became the leading advocate of poverty reduction through redistribution with growth. The IDA and IBRD lending shifted towards the poorest countries and more resources were allocated to direct benefits for the poor such as health and education. In the early 1980s, these policies continued. However, the economic recession and the debt crisis affected especially the poor negatively. The structural adjustment was introduced in 1980 in response to the growing problems in the developing world. In the mid-1980s, concern for the possible adverse impact of SA on the poor led the Bank to start supporting targeted compensatory programs. To summarize, the author finds a strong commitment within the Bank towards poverty alleviation. However, at the beginning of the 1980s, with the first SAP, the focused shift towards mitigating the economic crisis, and the poor were forgotten.	1993	<i>Debt and the Human Condition: Structural Adjustment and the Right to Development</i> , Studies in Human Rights, No. 14, Greenwood Press
Khan, Haider Ali	Economic Modeling of Structural Adjustment Programs: Impact on Human Conditions	Theoretical	The purpose of this paper is to pose analytical and empirical issues for academic research in the area of structural adjustment and its consequences. What is the appropriate model for structural adjustment? What empirical tests are feasible, and how have they been conducted? The author suggests that the World Bank and the IMF should start building multisectoral models based on social accounting matrices (SAMs). The advantage of this model is that it makes it possible to understand the social dimensions of adjustment. The model currently used by the Bank omits income distribution from the analysis of SAPs.	1993	Book: <i>World Debt and the Human Condition: Structural Adjustment and the Right to Development</i> , Studies in Human Rights, No. 14, Greenwood Press
Loewenson, Rene	Structural Adjustment and Health Policy in Africa	<p>Discussion and review of previous literature</p> <p>No new empirical evidence</p>	The author discusses the impact of SA on health in Sub-Saharan Africa. Structural adjustment is found to have a negative impact on health indicators, such as infant and child mortality. Nutritional status of children has declined in the adjusting countries. At the same time, governments have cut in per capita public health expenditures. The SAPs also induce a profound change in health policy, resulting in a widening gap between affected communities and policy makers. Health is no longer seen as a right, but as a commodity for the rich or a charity for the poor.	1993	International Journal of Health Services, vol. 23, no. 4, pp. 717-730.

Osunsade, F. L.	Impacts of Adjustment Programs: Concern for the Human Condition	Theoretical	The author suggests closer collaboration between the World Bank and the IMF on the one hand, and the international organizations within the UN system on the other hand. The result will be avoidance of adverse human condition impacts of SA and creation of synergetic effects. Efforts of third-parties entities such as the NGOs, UNICEF, and other UN agencies not directly involved in adjustment lending have undoubtedly been important in changing the focus to the poor and how SAPs affect them.	1993	Book: <i>World Debt and the Human Condition: Structural Adjustment and the Right to Development</i> , Studies in Human Rights, No. 14, Greenwood Press
Pitt, Mark	Analyzing human resource effects: Health	Provides a theoretical framework for assessing the effects of SA on health.	In this paper, a model of household behavior is outlined to depict the major linkages between sets of policy variables, biological factors, and the health of individual household members. Structural adjustment may influence health by altering expenditure on programs that provide medical and public health services by reducing real incomes and by changing the prices of market goods. Moreover, changes in the supply of health services and the cost to users for these services are the policy interventions most likely to affect health outcomes in the short run. In most developing countries, user fees are very low or zero. Travel costs and the opportunity cost of time spent in travel and queuing are the largest costs of using medical services. SA may result in user fees sufficiently high to ration the market, resulting in a very different allocation of service provision across individuals. The author concludes that it is extremely difficult to measure health outcomes, but ignoring them may lead to serious underestimation of the returns to investing in health.	1993	Book: <i>Understanding the Social Effects of Policy Reform</i> , The World Bank, Washington, D.C.
Sahn, David E., Bernier, René	Evidence from Africa in the Intrasectoral Allocation of Social Sector Expenditures	Cross-country study of African countries	This paper investigates if structural adjustment has tackled the problem of misallocation of resources for health and education. Health ministries in Sub-Saharan Africa are often inefficient and wasteful, even in the face of severe budget constraints. Theft of supplies, especially pharmaceuticals, poor management and inappropriate priorities are the main problems. Inappropriate priorities imply that curative rather than preventive care is emphasized. Experiences from several countries indicate that donor financing has sometimes exacerbated distortions. The data available show that there is no reorientation of spending away from the heavy emphasis on curative care. In many instances, the lack of change that the authors could empirically verify was matched by pronouncements and plans suggesting that change was imminent. Structural adjustment has thus not led to better allocation of resources within the health sector.	June 1993	Cornell Food and Nutrition Policy Program, Working Paper 45

Logie, Dorothy E. Woodroffe, J.	Structural Adjustment: the wrong prescription for Africa	Brief case studies of Zimbabwe, Zambia and Senegal. Mostly argumentative.	Criticizes the use of structural adjustment programs in Africa and the fact that debt relief is linked to the implementation of such programs. Examples from Zimbabwe, Zambia and Senegal show that the government expenditure on health and the health outcomes in those countries have deteriorated during the time of structural adjustment. The author suggests that reducing the debt burden, and making sure that adjustment programs put the needs of the poor at center as a better way to improve the situation in Africa.	July 1993	BMJ vol. 307, pp. 41-44.
Ibe, B.C.	Low birth weight (LBW) and structural adjustment programme in Nigeria	Case study of Nigeria Letter to the Editor	A study of low birth weight in Nigeria between 1984-89 showed that the LBW increased from 7% to 13% per year. It is also noted that total deliveries declined as well as total admission despite an increase in bed capacity. The decline in deliveries and admissions should be attributed to the introduction of SAP in Nigeria. The government subventions to hospitals decreased and user fees were introduced without improvements in quality of service. The reason for the rise in LBW is less obvious, but the author sees it as a consequence of the economic recession and the following SAPs.	Oct 1993	Journal of Tropical Pediatrics, Vol. 39, n. 5, p. 312.
van der Hoeven, R., Stewart, F.	Social development during periods of structural adjustment in Latin America	Case study of Latin America	This paper focuses on social development in Latin America during the period 1980-90, in which most Latin American countries applied adjustment policies. Two sets of statistics for health are included in the survey. The infant mortality rate that declined only a little in some countries (Brazil, Panama), but significantly in others. The maternal mortality rate also showed some variation and it is surprisingly high in certain countries. It increased in Costa Rica, Guatemala and Mexico, among others. Education and health spending as a percentage of GDP dropped for all intensively adjusting countries, except Brazil. There was a similar drop in health and education expenditure as a percentage of total government expenditure, which implies that the decline in investment in human resources was policy-induced and not only caused by the recession. The authors conclude that the attention given to social concerns during SAPs has increased. However, effective policies to decrease poverty and to improve levels of living still remain woefully inadequate.	Dec 1993	Occasional Paper 18, International Labour Office, Geneva
Banerji, Debabar	A simplistic approach to health policy analysis: The World Bank team on the Indian health sector	Argumentative	This paper discusses a World Bank report on health policy in India. The purpose of the report is to initiate dialogue between the government of India and the World Bank to clarify issues of direction in the face of structural adjustment. The author severely criticizes the report. The World Bank is ignoring Indian expertise and literature within the field of public health. The structural adjustment cut the central health budget with 20% in 1992-93.	1994	International Journal of Health Services, vol. 24, no. 1, pp. 151-59.

Ncube, Mthuli N.	Epochs of economic Structural Adjustment in Zimbabwe and Their Social Dimensions, 1965-1995.	Case study of Zimbabwe. Very little empirical data is presented.	This paper examines the three phases of adjustment that Zimbabwe has gone through. The first one 1965-79, the second 1980-89 and the third one 1991-95. The World Bank and the IMF have externally determined the third one, which make it different from the previous ones. The author discusses the social dimensions of adjustment. He concludes that the third adjustment program will and has had a negative impact on health outcomes and adverse the improvements made under the second adjustment. Especially the cost-recovery measure is criticized since it reduces access to health for the low-income groups.	1994	Book: <i>Economic Justice in Africa – Adjustment and Sustainable Development</i> , Studies in Human Rights, No. 16. Greenwood Press
Olweny, Charles	Bioethics in developing countries: ethics of scarcity and sacrifice	Argumentative	This paper discusses ethical dilemmas in the health sector in the context of structural adjustment. On the one hand, the author finds that increased spending on health does not equate with improved health measured in terms of life expectancy and infant mortality. On the other hand, structural adjustment implies a cutback in government expenditure on health and education. This is especially painful to developing countries where there are no social welfare schemes and where the person who is retrenched because of budget cutbacks, often support an extended family and/or a village. Structural adjustment, though excellent in theory, in practice takes no cognizance of the realities of life in developing countries.	1994	Journal of medical ethics, vol. 20, pp. 169-174.
Thiesen, Jean K.	A Study of the effects of Structural Adjustment on Education and Health in Africa	Regional study - Africa Cross-country comparison	The purpose of this article is to show that macroeconomics shocks and particularly cuts in government expenditure have had adverse effects on education and health in Africa. Fiscal and monetary restraints have reduced the ability of African governments and families to invest in education, nutrition and health care, and to soften the social impact of the economic crisis. Since it is difficult to separate the effects of the crisis from the effects of the SAPs, both are considered together as defining the economic environment facing the education and health sectors. The author finds that the real government expenditures on health fell on average by almost 50% during the SAPs. It is equally found that child mortality declined less in adjusting than in non-adjusting countries. In addition, the economic crisis and SAPs affected primary health care in rural areas more than hospital care in urban areas. In summary, both education and health was negatively affected during the course of adjustment although health care appears to have suffered more.	1994	Book: <i>Economic Justice in Africa – Adjustment and Sustainable Development</i> , Studies in Human Rights, No. 16. Greenwood Press

Anderson, Patricia, Witter, Michael	Crisis, Adjustment and Social Change: A Case Study of Jamaica	Case study of Jamaica	At the beginning of the nineties, after 13 years of stabilization and adjustment programs, the Jamaican economy still shows signs of serious imbalance. Jamaica is especially interesting since it was one of the first countries to implement a SAP, and the loan conditionality was particularly harsh. Infant mortality has dropped and continues to improve. However, per capita caloric intake declined and the prevalence of infectious diseases seems to have augmented. There is also evidence of severe draining of health personnel. The stock of registered nurses was reduced by 48%. The 1989 <i>Economic and Social Survey of Jamaica</i> concluded that the quality of the health care in all secondary institutions was seriously affected by the existing resource constraints. Furthermore, the rationalization program, which was initiated in 1984, concluded that the program had failed in terms of effectiveness and impact.	1994	Book: Consequences of structural adjustment: A review of the Jamaican experience, The University of the West Indies.
Serageldin, Ismail, Elmendorf, A. Edward, Eltigani, Eltahir Eltigani	Structural Adjustment and Health in Africa in the 1980s.	Africa-wide overview with case studies on Côte d'Ivoire and Ghana.	The purpose of the article is to shed further light on structural adjustment and health in Africa in the 1980s with particular focus on the poorest population groups. The paper concludes that the poorest populations did not suffer as a result of adjustment. There is a SA issue in the health sector. It is less one of mitigating the short-term negative impact of macroeconomic adjustment than of taking the initiative within the sector to increase the efficiency and equity of resource use. Substantial health improvements in Africa can be achieved with existing expenditures. Adjustment reforms are needed to ensure that they have appropriate health impact.	1994	Source: Research in Human Capital and Development. Vol. 8. Nutrition, food policy and development. JAI Press.
Sahn, David E.	Welfare Changes during Periods of Economic Transition: The Case of Nutrition On Economic Perform, Poverty, and Nutrition in Africa	Cross-country study of Africa No empirical evidence is presented	The author discusses the impacts of SA in Africa on poverty and nutrition. The economic reforms have not worsened preexisting levels of poverty and malnutrition, although, policy changes have failed to advance dramatically the objective of alleviating these problems. The author finds that spending on health did not decrease in the 1980s. However, there is evidence that the health expenditure was systematically skewed toward spending on hospital and curative care, neglecting the preventive care. The author therefore argues that the focus should be on how resources already available are being spent, instead of on the overall level of spending. Moreover, to combat waste and rent-seeking, there is a need to move away from centralization of authority in the state. The conclusion is that it is the urban non-poor, both those who receive the rents and those engaged in non-tradable sectors that are the main losers from economic reform. The vast majority of the poor, concentrated in rural areas, were the beneficiaries of state contraction, owing to increased investment and more rapid growth.	May 1994	American Economic Review: Papers and Proceedings

Grootaert, Christiaan	Poverty and Basic Needs Fulfilment in Africa During Structural Change: Evidence from Côte d'Ivoire.	Case study of Côte d'Ivoire.	The author has examined the social indicators in Côte d'Ivoire in the second half of the 1980s, a time of structural change and economic recession. During this time, public expenditure on health was relatively well protected. The author investigates the internal allocation of resources within one sector. In health, he distinguishes between curative and preventive care. The share of health spending for the tertiary level rose through most of the 1980s, mainly because of a near doubling of expenditures at university hospitals. Consultations among ill women in very poor households dropped by almost 50%. Preventive consultation, however, increased among the poor. Outcomes at the micro-level bear little relation to the evolution of public expenditure. The main conclusion is that the fact that, spending in the social sector was protected and the basic needs indicators changed little, mask the very wide differences between the poor and the non-poor. Basic needs indicators declined systematically for the poorest households.	Oct 1994	World Development, Vol. 22, No. 10, pp. 1521-1534
Mburu, F. M.	Wither community health workers in the age of structural adjustment?	Argumentative	The author poses the question whether community-based health programs survive in an era of donor-driven structural adjustment programs. He assumes that the move towards cost recovery in health programs will effectively put community health workers out of business. The concept of community health workers is also questioned.	Oct 1994	Soc. Sci. Med. Vol. 39, No. 7, pp. 883-885
No author, editorial	Structural adjustment too painful?	Argumentative	Argues that it was obvious from the beginning that SAPs would damage social sectors, but the objections of public health specialists were not heard above the authoritative pronouncements of the macroeconomists. Several features of SAPs had a negative impact on health and nutrition. Higher food prices, increased spread of AIDS caused by migration and urbanization, increased prostitution at the same time as the SAPs were depriving the health ministries of enough money to provide health care and prevention. User fees are also criticized. Strong opponent of World Bank policies.	Nov 1994	The Lancet, Vol. 344.
Zaidi, S. Akbar	Planning in the health sector: for whom, by whom?	Argumentative with country examples, but no empirical data.	The author sees the structural adjustment programs as a means for Washington, i.e. the World Bank and IMF to dictate the economic policy of developing countries. He argues that health planning in developing countries is decided upon in developed countries. Criticizes the belief that community participation is the key to progress and development within the health sector. Structural adjustment has caused a decline in government expenditure on health and worsened the health outcomes in developing countries according to the author. The key criticism is towards the external influences on health planning in developing countries.	Nov 1994	Soc. Sci. Med., Vol. 39, No. 9, pp. 1385-93.

Center for Development Research	Structural Adjustment in Africa: A Survey of the Experience	Case study of Africa in the 1980s.	One part of the paper is focused on health and education. The share of social sector expenditures in government budgets shows a decline for education while no clear trend is evident in health. Social indicators show improvements during the 1980s despite economic crisis and structural adjustment, which is seen as a result of both long-term effects of pre-adjustment social sector investments. Finally, it is noticed that user fees for primary services as being both cost-ineffective and socially imbalanced.	1995	Copenhagen, Ministry of Foreign Affairs
Sahn, David Bernier, René	Has Structural Adjustment Led to Health Sector Reform in Africa?	Case study of Sub-Saharan Africa Examines budget figures	<i>The paper explores the issue whether and how structural adjustment in SSA has altered the level and nature of state involvement in the health care system. It is found that structural adjustment in Africa did not reduce public health expenditure. At the same time, however, many indicators of health status deteriorated. This is partially explained by the fact that resources are allocated rather to curative than preventive care.</i>	1995	Book: Health Sector Reform in Developing Countries – Making Health Development Sustainable, Harvard University Press
Cornu, A, et al.	Nutritional Change and Economic Crisis in an Urban Congolese Community	Case study of Congo 2 cross-sectional surveys of children in Brazzaville <6 years old.	The first study that accurately has documented the evolution of nutritional status in the context of structural adjustment. The children's nutritional status was assessed. Weight-for-height and height-for-age as well as wasting and stunting were measured in accordance with WHO standards. Data analysis showed an increase in low birthweight, percentage of CED (chronic energy deficiency) and prevalence of wasting. By contrast, the overall prevalence of stunting decreased. The study shows that body mass index and nutritional status are sensitive to economic changes.	Feb 1995	International Journal of Epidemiology, vol. 24, No. 1, pp. 155-64.
Wakhweya, Angela M.	Structural adjustment and health – consider the consequences of the least empowered	Editorial	Health indicators in sub-Saharan Africa continue to stagnate or deteriorate. There has been very little research on the relation between structural adjustment and health indicators. What exists is largely anecdotal and the World Bank and other agencies have felt justified to ignore it.	July 8, 1995	BMJ, vol. 311
Podmore, Will	Financial institutions must let go	Letter	The author argues that private financial companies influence the IMF to impose SAPs on poor countries in order to ensure that they get their money back. The SAPs, in turn, adjust welfare provision downwards. It must be accepted that expenditure on health is not a drain on national resources, but a prerequisite for economic and social progress. Developing countries need to repudiate their debts, recapture their national independence, and control their own economies. That is the only way to reduce poverty and ill health.	Sept 1995	BMJ, Vol. 311, p. 809

Antia, N.H.	Structural Adjustment and India's health	Argumentative	The author see structural adjustment programs as a contrivance for changing the mode of development of need-based countries to suit the requirements of the West. Moreover the increased lending from institutions such as the World Bank has led to drastic cuts in government expenditure on health. An increase in poverty and malnutrition is the effect of the SAP. Finally, the World Development Report: Investing in Health is severely criticized. It is seen as an example of the continued arrogance of the West towards the non-western civilizations. The World Bank health policies are referred to as 'Hell for All' rather than 'Health for All'.	Nov-Dec 1995	The National Medical Journal of India, vol. 8, No. 6, pp. 277-278.
Anwar, Tilat	Structural Adjustment and Poverty: The Case of Pakistan	Case study of Pakistan Presents new empirical data	The paper examines the actual changes in absolute poverty during the period of adjustment. An economic crisis in 1988 lead to the implementation of a medium term SAP within the framework of the IMF and the World Bank. The government reduced expenditure on social services, mainly on education and health services over the period of adjustment. The data shows that the intensity and severity of poverty increased significantly by all poverty lines and measurements (considering malnutrition, for example) over the period of adjustment. SA also created new poor in urban areas amongst the low-income groups.	1996	The Pakistan Development Review, Vol. 35, No. 4, Part 2, pp. 911-926.

<p>Biljmakers, L. A., Basset, M. T., Sanders, D. M.</p>	<p>Health and Structural Adjustment in Rural and Urban Zimbabwe</p>	<p>Case study of Zimbabwe</p> <p>Part of a longitudinal study on the implications of the SAP in Zimbabwe.</p>	<p>The study investigates the effects of the SAP introduced in 1990 on the health sector. It is found that although the share of government expenditure allocated to health was the same over the SAP, the real per capita expenditure decreased significantly. There is also evidence that show that infant mortality is beginning to rise, reversing the gains made in the 1980s. User fees were introduced in 1991. This study shows that a quarter of the households reduced their spending on health care. This was mainly achieved by reducing clinic or hospital attendance. Children are the most affected in terms of reduced health care. The Zimbabwean government recognized the possible adverse effects of the SAP, and introduced social programs. The programs reached very few of the poor and they have not helped mitigate the adverse effects of the SAPs. It is recognized that it is extremely difficult to isolate and attribute causality to the effects of the SAP. Especially the severe drought of 1991-92, and the increasing prevalence of AIDS, cannot be separated from the affects of SA. However, there are two main conclusions from this report. First, the government and international aid organizations appear to be unable to adequately protect the poor from the adverse effects of economic decline. Second, the government's failure to protect the health sector from budgetary cutbacks appears to have a negative impact on households' welfare.</p>	<p>1996</p>	<p>The Scandinavian Institute of African Studies, Research Report No. 101</p>
<p>Laurell, A. C. Arellano, O.L.</p>	<p>Market commodities and poor relief: The World Bank proposal for health</p>	<p>Argumentative</p>	<p>This article discusses the World Bank health-related activities and policies as expressed in the <i>1993 World Development Report: Investing in Health</i>. The report is criticized for rejecting health as a human need and a social right. It promotes private provision of health care. Only a very limited number of highly cost-efficient interventions are recommended to be provided by the state. The authors argue that, in the context of SAPs, private health funds are the necessary complement of hospital corporations since public funds are insufficient to cover the cost of private services. (SAPs imply serious cutbacks in state health expenditure.) Through this mechanism, the private system concentrates a major portion of health resources on covering the needs of a minority of the population, thus reducing the resources of the public system that is responsible for the majority.</p>	<p>1996</p>	<p>International Journal of Health Services, vol. 26, no. 1, pp. 1-18.</p>

Orubuloye, I.O. Oni, J.B.	Health transition research in Nigeria in the era of Structural Adjustment Programme	Case study of Nigeria	Health care in Nigeria was highly subsidized by the state until 1984 when user fees were introduced. At the same time, economic difficulties and the introduction of a SAP has led to a decrease in government expenditure on health. This household study examines health-seeking behavior in several Nigerian states. It is found that it is the person who decides upon treatment that also pays for it. If the mother (father) decides that her (his) child needs treatment, she (he) pays. Health care is sought both from traditional healers and modern health facilities and they are seen as complimentary rather than conflicting. Finally, the poor are increasingly finding it difficult to meet health cost because of the high cost of treatment.	1996	Health transition Review, supplement to vol. 6, pp. 301-324.
Prabhu, K. Seeta	The Impact of Structural Adjustment on Social Sector Expenditure: Evidence from Indian States	Case study of India Compares the social sector performance in different Indian States under SAPs.	Discusses the implementation of the SAP in India that started in 1991, which is said to be with a "human face". The author stresses that the success of SAPs rests with State governments. It is the States and not the Center that ensure the provision of basic needs. Regarding public health, it is in the domain of the States, but the Center plays a key role in that it finances several programs including the maternal and child health services. The author shows it is the States' commitment to social protection that matters in times of SAPs. Although Punjab showed impressive growth rates, the importance accorded to social sectors has declined under the SAP, while the expenditures on social sectors have been protected in States like Tamil Nadu and Kerala despite low growth performance. The author suggests that the States continue with the recent trend that consists of negotiating directly with international financing institutions and bilateral donors.	1996	Book: Economic Reform and Poverty Alleviation in India. Indo-Dutch Studies on Development Alternatives, Vol. 17, Sage Publications.
Taylor, Lance Pieper, Ute	Macroeconomic Adjustment, Education and Health	Cross-country study Empirical evidence	It is clear that many SAPs either had negative social effects or were unable to counter negative effects caused by other factors. The question is not whether to adjust or not, but how. Some countries, adopting a growth-oriented approach instead of pre-dominantly contractionary policies, succeeded in avoiding negative social outcomes. However, growth-oriented adjustment is necessary, but not sufficient to protect vulnerable groups. To conclude the authors find that a coherent theoretical treatment of feedback between macroeconomic policies and social outcomes is only beginning to emerge. Furthermore, social indicators are not only functions of economic growth, income and consumption. There are also significant positive and negative feedback between them that can lead to virtuous or vicious circles.	1996	Book: <i>Reconciling Economic Reform and Sustainable Human Development: Social Consequences of Neo-Liberalism</i> , Office of Development Studies, UNDP

Lundy, Patricia	Limitations of Quantitative Research in the Study of Structural Adjustment	Case study of Jamaica.	The study focuses on effects of the Jamaican debt crisis and structural adjustment programs on health care services and health standards. During the SAP, the health expenditures decreased both as a share of total government expenditures and of GDP. In addition, a significant reduction occurred in the overall numbers of personnel employed in the health sector. The World Bank acknowledge the fact that structural adjustment have led to lower health expenditures, but defends the criticism by saying that that should encourage greater efficiency within the health sector. The available data indicates that there has been no decline in health output indicators apart from increased rates of malnutrition among children. The difficulty in assessing the impacts of SAPs on social welfare is emphasized. The author has conducted a qualitative study based on interviews with health workers and their perception of the effects of SAP. The SAPs has not led to greater efficiency, but to deterioration in the quality of health services.	Feb 1996	Soc. Sci. Med., Vol. 42, No. 3, pp. 313-24.
Jayarajah, Carl Branson, William Sen, Binayak	Social Dimensions of Adjustment, World Bank Experience, 1980-93	Cross-country study of all the evaluated adjustment operations supported by the Bank in 1980-93 (114 operations in 53 countries).	This book examines all the World Bank adjustment operation in 1980-92, focusing on the social outcomes. Social spending (as a percentage of GDP) fell less than all the discretionary expenditures, and increased in half of the countries. The more relevant per capita social spending fell in real terms in almost two-thirds of the countries. The allocation between preventive and curative care improved only in a few countries and worsened in many. School enrollment dropped in a large number of countries, but the long-term reduction in infant mortality has continued during the adjustment period. The author find that social spending did not suffer major cuts is broadly consistent with the findings of other studies. It does not mean that actions to protect essential social services during fiscal austerity were given high priority in most countries. Social expenditures appear to have been protected mainly because of their larger employment component. Governments tend to maintain personnel expenditure at the expense of expenditures on capital and material input. On average, the level of social spending has been much higher in Latin America and the Middle East and North Africa, than in Asia and SSA.	April 1996	World Bank, Operations Evaluation Department

Mwabu, Germano	Health Effects of Market-Based Reforms in Developing Countries	Review of previous literature Cross-country regression analysis to assess health effects of SAPs from 1980-93, controlling for effectiveness in their implementation.	The model used to assess health outcomes of SAPs is developed by Anand and Chen (1996), and based on an individual-specific health production function. The function is dependent on numerous variables such as income, nutrition, and environmental and social conditions. It is found that health outcomes have improved more in countries that are successful adjusters than in non-adjusters and poor adjusters. Moreover, previous incomes are inversely related to infant, child and maternal mortality rates. This explains why improvements in health have been observed during periods of economic crisis.	Sept 1996	UNU World Institute for Development Economic Research (UNU/WIDER), Working paper no. 120, Helsinki, Finland.
Peabody, John W.	Economic Reform and Health Sector Policy: Lessons from Structural Adjustment Programs	Theoretical Reviews previous literature on the subject.	Discusses how structural adjustment strategies affect health care, directly and indirectly and how these effects should be measured. Suggests ways of dealing with budget constraints under SAPs and keep the health care at a reasonable level. The most important lesson learned is that a multisectoral approach is necessary. Social factors such as education, infrastructure, and political factors such as leadership and the timing of are also critical in evaluating success and failure. The countries that have managed the reform process well are those that have taken a multisectoral approach to health.	Sept 1996	Soc. Sci. Med. Vol. 43, No. 5, pp. 823-835.
Onyeiwu, Steve Shrestha, Hermanta Botero, Claudia	A Welfare-Based Evaluability Assessment of Structural Adjustment Programs in Africa	Theoretical Empirical: studies the correlation between infant mortality rate, life expectancy and school enrollment on the one hand and structural adjustment on the other hand in SSA 1980-87.	This paper presents a method for evaluating the relationship between SAPs and HDIs (Human Development Indicators). Evidence that SAPs do influence HDIs is also presented, and the authors argue that SAPs should aim at improving both economic and non-economic indicators.	1997	Canadian Journal of Development Studies, XVIII, Special Issue.
Rios-Neto, Eduardo De Carvalho, Jose Alberto Magno	Demographic Consequences of Structural Adjustment: <i>The Case of Brazil</i>	Case Study of Brazil Reviews previous literature and undertakes a timeseries analysis (using the Malthusian model.)	Studies the short-term fluctuations in order to assess the demographic consequences of crisis and structural adjustment in Brazil. The variables included in the model are price fluctuations, aggregated production and unemployment rate. It is found that both fertility and marriage are positively correlated with economic performance, while the evidence on infant mortality is less clear. The author finds that the decline in infant mortality rate and malnourished children in the 1980s is not due to economic growth, but to an increase in social programs and better health care. The empirical study on short-term variations in economic variables and vital rates in the city of São Paulo shows that the impact of GDP on marriages and births was positive. The relation between infant mortality and GDP was negative. A plausible explanation is that sanitation, health and nutrition is more important than economic performance for infant mortality.	1997	Demographic Responses to Economic Adjustment in Latin America, Clarendon Press

Behrman, Jere	The Effect of Structural Adjustment on Food Policy and Nutrition	Case study of Latin America using an economic household model to determine nutrition and health status and how they are affected by structural adjustment programs. More theoretical than empirical. Special case study of Mexico	What do we know about the impact of structural adjustment in Latin America on food policy and nutrition? In the process of structural adjustment, price ceilings have been removed, food subsidies lessened or eliminated, taxes and quantitative limitations on food exports lessened or eliminated, and domestic currencies devaluated. The result has been fewer distortions in the domestic price structures and immediate increase in relative food prices. The Tortilla-Solidaridad Program in Mexico is examined. The program was introduced in 1990 as a part of a structural adjustment package. The program is equivalent to a direct income transfer and does not distort the consumption decisions of the poor. The results are positive. It, however, is noted that the impact on nutrient intakes is quite small. The conclusion is that it is true for food and nutrition programs in the region in general.	1997	Demographic Responses to Economic Adjustment in Latin America, Claredon Press
Mason, Andrew	The Response of Fertility and Mortality to Economic Crisis and Structural Adjustment Policy during the 1980s: A Review	Cross-country Presents evidence from previous studies on economic crisis its impact on fertility and mortality.	The objective of the paper is to assess the impact of economic crisis and structural adjustment on fertility and mortality through reviewing recent research and literature. The author finds that the information available to track mortality and fertility has many limitations, especially since the data inadequacy is greatest in the poorest countries. However, it is noted that people in developing countries have a remarkable ability to minimize the impact of severe economic crisis. The fluctuations in fertility and mortality rates are thus much lower than what could be expected.	1997	Demographic Responses to Economic Adjustment in Latin America, Claredon Press
Musgrove, Philip	Economic Crisis and Health Policy Response	Case study of Latin America No new empirical evidence of the impact of structural adjustment.	Emphasizes the difficulty to distinguish between the impact of economic crisis and structural adjustment on health policy responses. The author shows that the money allocated to health in Latin America decreased during the economic crisis in the 1980s. He concludes that the policies must be sustainable even under an economic crisis, the system should not have to be changed entirely due to budget constraints.	1997	Demographic Responses to Economic Adjustment in Latin America, Claredon Press
Jerome, Norge, W. Ricci, Judith, A.	Food and nutrition surveillance: an international overview	Overview of Food and Nutrition Surveillance (FNS) Programs.	To monitor the effects of structural adjustment programs on food and nutrition has been added to the activities of FNS systems. In Thailand, the concept of FNS was introduced in 1977. Since 1989, it has been used to gather information for policy planning, targeting interventions, and monitoring the effects of structural adjustment programs.	Apr 1997	Am J Clin Nutr, vol. 65 (4 Suppl), pp. 1198S-1202S.
Kumar, Sanjay	World Bank policy of structural adjustment under fire in India.	Argumentative.	The World Bank is emerging as the single largest source of health care financing in developing countries. Its advocacy for a prominent role for private and voluntary sectors for contracting out services and levying user charges for health care is under attack.	Oct 25, 1997	The Lancet, Vol. 350, p. 1233.

Bassett, Mary T., Bijlmakers, Leon, Sanders, David, M.	Professionalism, Patient Satisfaction and Quality of Health Care: Experience during Zimbabwe's Structural Adjustment Programme	Case study of Zimbabwe Empirical study through focus group discussions with community women and nurses in an urban and a rural area, held in 1993 about three years after policy reform.	Examines the impact of SAPs on health workers professionalism and client-professional interactions. In January 1994, a fee rationalization resulted in up to 10-fold increase in charges. At the same time the inflation rate was 46.3% per year, and real per capita expenditure on health fell by 30%. The study shows that both nurses and community women see clinic fees, drug shortages and long waiting times as sources of dissatisfaction and declining quality of care. The problems have augmented under the SAP.	Dec 1997	Soc. Sci. Med. Vol. 45, No. 12, pp. 1845-1852.
Bassett, Mary T., Bijlmakers, Leon, Sanders, David, M.	Socioeconomic Stress, Health and Child Nutritional Status in Zimbabwe at a Time of Economic Structural Adjustment – A three year longitudinal study	Case study of Zimbabwe A three year longitudinal study Follow-up of the study cited in Bassett et al. 1996.	This study is a follow-up of the study investigating the effects of the SAP introduced in 1990 on the health sector. The first study comprised 1993-94, and this study adds the results from 1995. A rural and an urban district in were chosen for the study and approx. 300 households in each district were interviewed. The proportion of reported illnesses for which no treatment was sought tends to have increased over time. Both in the rural and the urban areas, less people paid for health care in 1995. At the same time, the fees increased. There is also strong evidence that home deliveries increased in the rural district. Maternity fees increased in both districts. While there was no change in the urban area in the proportion of malnourished children, wasting, indicating acute malnutrition, increased in the rural area. This report reinforces the authors' conclusions from the previous report. The government and international aid organizations appear to be unable to adequately protect the poor from the adverse effects of economic decline. Moreover, the government's failure to protect the health sector from budgetary cutbacks appears to have a negative impact on households' welfare.	1998	The Scandinavian Institute of African Studies, Research Report No. 105, Uppsala, Sweden
El-Ghonemy, M. Riad	Affluence and poverty in the Middle East	Cross-country study of eight countries in the Middle East that have received at least one structural adjustment loan from the World Bank and the IMF. The countries are: Tunisia, Egypt, Morocco, Sudan, Turkey, Mauritania, Jordan and Algeria.	The paper investigates what has happened to employment, real wages, cost of living, and indicators of health, education and nutrition during the time of SA. Adjustment is regarded as successful if it redresses most economic imbalances and, reduces inequality of income and absolute poverty. Comparing the effects of SAPs in the different countries, the author is pessimistic. It is only in Tunisia that the SAP has had positive social and economic outcomes. In all countries except Algeria and Tunisia, public spending on health and education decreased. The SAPs have turned health and education from what is essentially a public service to a private commodity whose price, determined by the market, is unaffordable by the poor.	1998	London and New York, Routledge

Gertler, Paul Litvack Jennie	Access to Health Care during Transition: The Role of the Private Sector in Vietnam	Case study of Vietnam	Vietnam went through a classical SAP in the beginning of the 1990s. The country is unusual in that it did not receive any financial support from the IMF or the World Bank, only technical assistance and policy advice. The adjustment has been successful, resulting in doubled real per capita government expenditure over five years and high economic growth. Vietnam has historically shown a strong commitment to public health and the access to health care has been remarkably good even for the poor, considering Vietnam's income level. In the late 1980s, the <i>doi moi</i> (economic reforms) opened the door to private financing of health care. The <i>doi moi</i> has led to deterioration in the quality of public health care. The private sector is filling the gaps, but only for the richer part of the population. The authors conclude that better targeting of public subsidies to the poor can enhance the complementarity of the public and private sectors. Today's situation of an unregulated private sector combined with an underfunded public sector is a dangerous one.	1998	Book: <i>Household Welfare and Vietnam's Transition</i> , The World Bank, Washington, D.C.
Logie, Dorothy Rowson, Michael	Poverty and Health: Debt Relief Could Help Achieve Human Right Objectives	Argumentative	Article 25 (Universal Declaration of Human Rights) states that "everybody has the right to a standard of living adequate for the health of himself and his family". The paper discusses how economic crisis and SAPs affect this human right. The authors argue that the access to health care in developing countries has declined since SA is followed by cuts in government health expenditure, and since the World Bank is a strong advocate of cost recovery in the form of user fees.	1998	Health and Human Rights - An International Journal, vol. 3, no. 2, pp. 82-97.
Priya, Ritu Rama, V. Baru	Structural adjustment and health	Letter	The SAPs have led to a decreasing role of the state in health care, undermine the comprehensive approach to primary care and ignore the social context of disease. However, it is not only the cutbacks in health expenditure that affect health outcomes: higher unemployment, worsened food security, and inflation also have a bearing on health. The authors conclude that SAPs have not been in place long enough in South-East Asia to establish their long-term impact on health, but there are important signals that need to be taken seriously.	1998	World Health Forum, Vol. 19, No. 2, pp. 160-1.

Sen, Kasturi Koivusalo, Meri	Health care reforms and developing countries – a critical overview	Theoretical Reviews previous literature on the subject.	The paper discusses and criticizes the meaning of the term “health care reform” as employed in key World Bank documents published in the late 1980s and early 1990s. Those policies include increased cost-sharing and a rapidly expanding role for private health care providers. The Bank influenced health care reforms have been implemented as a part of SAPs. The authors discuss the direct and indirect effects of SAPs on health care systems. They found that it is especially the poor that have been the most negatively effected by the reforms. It is concluded that recent health care reforms in developing countries support a re-emergence of colonial structures, which encourage an affluent minority sufficiently privileged to have separate arrangements with private care. The majority of the population remains marginalized or suffers economic hardship if they seek any health care other than the essential packages available in the public sector.	1998	Int. J. Health Plann. and Mgmt., Vol. 13, pp. 199-215.
Van der Gaag, Jacques, Barham, Tania	Health and Health Expenditures in Adjusting and Non-adjusting Countries	Cross-country study	The study focuses on the impact of the World Bank SAPs on health expenditures and outcomes. Trends and levels of real per capita public spending on health, private consumption and child mortality are compared in adjusting and non-adjusting countries. Private spending is an often forgotten aspect of the health care system. It equals 40% of total spending globally. The authors find that public spending on health care did not decrease in the adjusting countries. The trend in health indicators show tremendous and continuing progress during the past two or three decades. There were few discernable differences between adjusting and non-adjusting countries.	Apr 1998	Soc. Sci. Med. Vol. 46, No. 8, pp. 995-1009.
Dabour, Nabil Md.	The impact of stabilisation and structural adjustment programmes (SSAPs) on human development and poverty alleviation – the experience from some OIC member countries	Cross-country study. Theoretical Review of other studies	The study is focused on Stabilisation and Structural Adjustment Programmes (SSAPs) and their social effects. Both the short-term and long-term impact is discussed. There are two main channels through which SSAPs affect social outcomes. First through increased unemployment rates and excess capacity of the labor force, and second through deterioration in the conditions of the poor and difficulty in meeting their basic needs. The author concludes that it is clear that the SSAPs adopted in developing countries and necessitated by worsening economic crisis had “extremely adverse” effects on human resources development and poverty alleviation. However, adjustment is necessary. The relevant question is therefore how, not whether, to adjust.	1999	Journal of Economic Cooperation among Islamic Countries, Vol. 20, no. 3, pp. 39-66

Kahn, Shahrukh Rafi	Structural Adjustment and Health	Case study of Pakistan Empirical study of health expenditures. Presents evidence on hypothesis testing with regards to testing the effectiveness of government health expenditures.	Discusses World Bank health policies as they are presented in the <i>World Development Report 1993: Investing in Health</i> . It is found that the health expenditures as a percentage of GDP fell during the SA period. However in absolute real terms, they have increased and the access to health personnel has improved significantly. The author argues that the problem is that it has not increased as much as it should. All health indices have improved during the SA period. Infant mortality fell by 33% from 72 to 1994 and maternal mortality more than halved from 1980 to 1994. Private household expenditure on health increased which is contributed to user fees. The author concludes that some progress has been made, but much more needs to be done. He strongly opposes the World Bank view that health expenditures as a percentage of GDP should decline.	1999	Book: Do World Bank and IMF policies work? St. Martin's Press
Kolko, Gabriel	Ravaging the poor: The International Monetary Fund indicted by its own data	Cross-country study Empirical evidence from IMF and World Bank publications	This paper presents empirical evidence from several IMF and World Bank publications. The IMF believes that the SAPs have been successful, but the author of this article show with IMF's own data the negative impact of structural adjustment programs, especially for the poor in the poorest countries. Government expenditure on health and education has decreased in many countries, and the social safety nets that have been put in place to mitigate the negative effects of SAP mostly benefit the middle- and upper-income classes. IMF's own data confirm that SAPs made the poor even poorer. The author concludes that the poor nations, which remained outside the SAPs, did not do much better, but they certainly did not do worse than the IMF-led countries.	1999	International Journal of Health Services, vol. 29, no. 1, pp. 51-57.
No author	Meeting the Health Care Challenge in Zimbabwe	Case study of Zimbabwe	This paper evaluates the World Bank lending to the health sector in Zimbabwe and discusses the effects of the SAP introduced in 1991. Bank support has proven valuable to the health sector, but the impact of the health system performance and health outcomes has been undermined by economic stagnation and a devastating AIDS epidemic, the world's most severe. In the 1990s, both infant and adult mortality increased, as did opportunistic infections such as tuberculosis. While the economic crisis may have weakened the health system, the increases in mortality are primarily attributed to AIDS. It is recognized that the SAP liberalized the economy, but failed to control the budget deficit. The large budget deficit contributed to declines in real health spending and real wages for health workers. Many of the poor are worse-off than before adjustment began. Even though the poor were targeted to be exempted from user fees, the system failed. 40% of the urban poor gave "too expensive" as the reason for not seeking treatment when ill.	Winter 1999	Précis, World Bank Operations Evaluation Department, No. 176

Elounou-Enyegue, P. M., Stokes, C. S., Cornwell, G. T.	Are there crisis-led fertility declines? Evidence from central Cameroon.	Case study of Cameroon	This study examines fertility responses to crisis in Cameroon. The crisis-led decline is tested on the basis of five criteria: timing of the decline, statistical and substantive significance, rural-urban response differentials and social salience. The adjustment policies and the economic decline have profoundly transformed the economics of childbearing in ways that affect fertility behavior; family incomes have declined, the cost of education has risen, and the remittances from children have become more uncertain because of growing unemployment and lower salaries. Cameroon is especially interesting since the crisis began later than in the rest of sub-Saharan Africa, and since it was particularly abrupt. The crisis is estimated to have set living standards back by about 25 years. The authors find that all five criteria are met. There is a clear pattern of fertility decline in the aftermath of economic crisis. Fertility rates in the study area have steadily declined from 6.6 in 1987 to 5.3 in 1995.	Feb 2000	Population research and Policy Review, Vol. 19, No. 1, pp. 47-72.
Onah, H.E.	Declining fetal growth standards in Enugu, Nigeria	Case study of birth-weights in Nigeria	The objective of the study is to compare birth-weight of babies born before and after the introduction of the Nigerian SAP. It was found that the babies were on average 183 g lighter in 1998 than in 1984. The incidence of low-birth weight rose from 4.3% to 10.1%, and the duration of pregnancy was significantly shortened. It is also noteworthy that the obstetric care in the hospital was subsidized by the state prior to the SAP. In 1998, only the rich could afford the services at the hospital. The number of deliveries dropped from 2686 in 1984 to 964 in 1998, but the proportion of emergencies increased from 3.7% to 20%.	Mar 2000	International Journal of Gynecology and Obstetrics, vol. 68, no. 3, pp. 219-24.
Israr, S. M., et al.	Coping strategies of health personnel during economic crisis: A case study from Cameroon	Case study of Cameroon	The study investigates how health workers were affected by the sudden and severe economic crisis in Cameroon. Focus groups discussions with doctors, nurses, pharmacists and laboratory technicians were used to gather data. Salaries for health personnel have been cut with 50% for government employees. The salaries among mission health personnel have also been cut, but not so dramatically. To cope with the lower wages, health personnel skip meals, eat low quality food, sell household items, withdraw their children from school, and growing food etc... Nurses and doctors in government establishments were also reported to be selling cheap, low quality drugs from unreliable sources. 'Under the table' charges were also common as well as running a private practice. No such activities mentioned by mission health personnel. The government employees admitted that their side-activities had a negative effect on service quality and on their patients. Informal charges have in effect, turned the government health services into private services in disguise.	Apr 2000	Tropical Medicine and International Health, vol. 5, no. 4, pp. 288-292.

Kalipeni, Ezekiel	Health and disease in southern Africa: a comparative and vulnerability perspective	Discussion Review of previous literature	Focuses on the countries where there have been no improvements in health outcomes. This is due to political and/or economic instability. SAPs are seen as a reason to the economic problems. Argues that the achievements in health outcomes such as lower IMR, MMR mask the gleam reality of a worsening situation in southern Africa. Blames the SAPs for having far reaching deleterious effects on health and social services throughout Africa. Presents evidence from previous studies. The key to more equitable future seems to lie squarely with increased levels of female education and autonomy.	Apr 2000	Soc. Sci. Med. Vol. 50, No. 7-8, pp. 965-83.
Cruickshank, C. J.	Report from Nicaragua: Midwifery and structural adjustment.	Case study of Nicaragua	This paper discusses the role of midwives in Nicaragua under the structural adjustment program that was introduced in 1990. Annual health care spending as fallen from \$58 per person in 1988 to \$16 per person in 1995. The government spends twice as much money on debt repayment as on health and education together. Since rural health posts are dismantled, no one is keeping health statistics in those areas. Consequently, the presumed increase in morbidity and mortality in rural districts are essentially undocumented. At a national level, the infant mortality is increasing.	Sept-Oct 2000	Journal of Midwifery & Women's Health, vol. 45, no5, pp. 411-415.
Garenne, Michel Gakusi, Eneas	Health effects of structural adjustment programs in sub-Saharan Africa	Case studies of ten countries in Sub-Saharan Africa with cross-country comparison. (Kenya, Uganda, Ghana, Côte d'Ivoire, Madagascar, Mozambique, Benin, Cameroon and Rwanda)	The study focuses on the effects on health indicators of SAP implemented in SSA in the 1980s, more specifically on trends in child survival before and after the introductions of SAPs. The success or failure of health policies depends primarily on the performances of the state. Modern public health was first focused on disease control through hygiene, vaccination, and nutrition. In Senegal, Kenya, Rwanda and Côte d'Ivoire, where mortality was declining prior to SAP, the trend continued independently from economic reforms. Cameroon is one of the few cases where mortality decline seems to have come to a halt after SAP was implemented. In Benin, Ghana, Madagascar and Uganda, mortality was increasing before the SAPs, but started declining after the introduction of these programs. In Zambia, it is difficult to interpret the evolution of mortality due to the fact that the SAP was stopped for political reasons. The authors do not find any negative impact of SAP. From the analysis of the ten case studies, it is clear that SAPs have has overall none or a beneficial effect on mortality trends. The authors' main hypothesis for those findings is that the SAPs have improved governance and that that is the key determinant to improve health outcomes.	Nov 2000	Draft, To be published as a CEPED working paper (CEPED: French Center for Population and Development Studies)

Annex 2

Summary Table Literature Review – Empirical findings

Author (date)	Title	Location	Methodology	Data Source (sample size)	Variables	Outcome/Direction of relation
Cornia, G. A. Stewart, F (1987-1988)	Country Experience with Adjustment	Botswana, Ghana, Zimbabwe, The Philippines, South Korea, Sri Lanka, Brazil (São Paulo), Peru, Chile and Jamaica.	Case studies Descriptive analysis of data to find out the impact of structural adjustment on social outcomes.	Government statistics from the investigated countries.	<i>Social outcomes of adjustment.</i> Botswana, (Drought relief program) Brazil Chile Ghana Jamaica Peru The Philippines South Korea Sri Lanka Zimbabwe	Successful Failure Successful Failure Failure Failure Failure Successful Failure Successful
Hill, Kenneth Pebley, Anne R. (Dec 1989)	Child Mortality in the Developing World	66 developing countries with a population in 1980 of more than a million.	Consideration is limited to national estimates with rather strong empirical support from 1960 to 1985. The measured used is the probability of dying by age five, ${}_5q_0$. The countries are grouped by region: Americas, Asia, Middle East and Africa.	Study 1987 by Althea Hill “ <i>Child Mortality in Sub-Saharan Africa</i> ” United Nations 1988 “ <i>Mortality of Children Under Age 5: World Estimates and Projections, 1950-2025</i> ” Demographic and Health Surveys (DHS)	Pace of absolute decline in child mortality in the 1970s and 1980s Effects of structural adjustment on child mortality	No evidence that it has slowed down Have not slowed mortality declines substantially

Suh, Sang-Mok Yeon, Ha-Cheong (1992)	Social Welfare during the Period of Structural Adjustment	Korea	Case study of Korea Investigates how statistics on health expenditures, both on government level as well as household data changed over the time of structural adjustment (1974-86).	Budget Bureau, Economic Planning Board, Seoul Ministry of Health and Social Affairs Korea Development Institute	Government social welfare expenditures Medical Care Assistance Program Medical Insurance Health expenditure as a percentage of total government expenditure Infant mortality Maternal mortality	Increased Increased coverage Increased coverage Increased Decreased Decreased
Woodward, David (1992)	Debt, adjustment and poverty in developing countries. Volume 2. <i>The impact of debt and adjustment at the household level in developing countries.</i>	Sub-Saharan Africa	Investigates various health and education indicators in SSA. The countries are divided into sub- groups. The criteria used are the level of indebtedness combined with the adjustment policy of the country (early adjustment, other adjustment and no adjustment). The time period investigated is from 1969 to 1989.	World Tables 1991 World Bank 1990	Rate of Infant mortality decline Rate of increase in life expectancy Government expenditure (% of GDP) on health: - Early and intensive adjustment - Other adjustment - Non-adjustment	Slowed down Slowed down Decreased Increased Increased
Sahn, David E., Bernier, René (June 1993)	Evidence from Africa in the Intrasectoral Allocation of Social Sector Expenditures	16 countries in Sub- Saharan Africa	The authors investigate whether or not structural adjustment has tackled the problem of misallocation of resources for health (and education). There is a bias towards curative care although primary care is more cost efficient. Statistics showing public expenditure in SSA are analyzed.	World Bank	Shares of health expenditures to different levels: Primary versus curative care Recurrent versus development costs	Not improved Improved (where foreign financing has been available)

Van der Hoeven, R., Stewart, F. (Dec 1993)	Social development during periods of structural adjustment in Latin America	Latin America (11 adjusting countries: Bolivia Brazil Chile Costa Rica Jamaica Mexico Uruguay Argentina Ecuador Panama Venezuela)	Investigates social development in Latin America in 1980-90, a time when most Latin American countries applied adjustment policies. Social outcome indicators are used to assess the consequences of SA.	Psacharopoulos et al. 1992. " <i>Poverty and income distribution in Latin America: The story of the 1980s</i> ". The World Bank	Under five mortality rate Maternal mortality rate Health and education expenditures as a percentage of GDP Health and education expenditures as a percentage of total government expenditure Per capita expenditure on health and education	Declined Declined (all but Guatemala) Decreased in all but three countries (Brazil, Uruguay, Panama) Decreased in 6 countries, increased in 5 (Brazil, Uruguay, Argentina, Panama, Venezuela) Decreased in 6, increased in 5 (Brazil, Chile, Costa Rica, Uruguay, Panama)
Thiesen, Jean K. (1994)	A Study of the effects of Structural Adjustment on Education and Health in Africa	Africa	Macroeconomic framework to compare expenditures on health and education in adjusting (19) and non-adjusting (12) African countries from 1970-1988.	Government Finance Statistics Yearbook, 1985, 1991, IMF African Statistical Yearbook, Addis Ababa, ECA, 1991. World Development Report, 1991, The World Bank	<i>Share of total expenditures on health care:</i> - adjusting countries - non-adjusting countries <i>Real absolute expenditure on health care:</i> - adjusting countries - non-adjusting countries <i>Rate of decline in infant mortality:</i> - adjusting countries - non-adjusting countries	Stable Increase Decreased Decreased Slower Faster
Anderson, Patricia, Witter, Michael (1994)	Crisis, Adjustment and Social Change: A Case Study of Jamaica	Jamaica	Investigates health indicators in Jamaica from 1970 to 1987 and how they've changed under the structural adjustment programs.	Social and Economic Surveys; FAO, 1991 Planning Institute of Jamaica: <i>Economic and Social Surveys of Jamaica</i> . 1982, 1984, 1986 and 1988 editions.	Infant mortality Life expectancy Per capita caloric intake Ratio of health personnel to population	Decline Increase Decrease Worsened

Serageldin, Ismail, Elmendorf, A. Edward, Eltigani, Eltahir Eltigani (1994)	Structural Adjustment and Health in Africa in the 1980s.	16 African countries (Burundi, Central African Republic, Chad, Cote d'Ivoire, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Nigeria, Sao Tome, Tanzania, Togo, Uganda and Zambia)	Compares adjustment and non-adjustment years in 16 African countries with sustained and continuous adjustment program performance in the 1980s	World Bank data files	Per capita public expenditures on health Expenditure on health as a percentage of total government expenditures Infant mortality Child mortality	Decreased Increased Decreased Decreased
Grootaert, Christiaan (Oct 1994)	Poverty and Basic Needs Fulfilment in Africa During Structural Change: Evidence from Côte d'Ivoire.	Côte d'Ivoire	Uses a poverty aversion parameter (P-alpha measure developed by Foster, Greer and Thorbecke) to assess basic needs fulfillment for the poor under structural adjustment. Two poverty lines were used to distinguish between the poor and the extremely poor.	IMF and World Bank Statistics Côte d'Ivoire living standards survey (CILSS)	Access to: - Education - Health - Housing (for the poorest households)	Decreased Decreased Decreased
Sahn, David Bernier, René (1995)	Has Structural Adjustment Led to Health Sector Reform in Africa?	Sub-Saharan Africa (16 countries)	Examines the allocation of resources within government expenditures on health.	Government statistics from the 16 investigated countries	Real health expenditures Health indicators Primary versus curative care	Increased Deteriorated Worsened (stronger bias toward curative care)
Cornu, A, et al. (Feb 1995)	Nutritional Change and Economic Crisis in an Urban Congolese Community	Congo	2 cross-sectional surveys of children in Brazzaville <6 years old. 2295 in 1986 2373 in 1991 Multivariate statistical analysis	1986 survey 1991 survey	Weight-for-height (wasting) Height for age (stunting) Body mass index (mothers) Chronic energy deficiency Percentage of low birth wage	Decreased Increase Increased Decrease Stable Increase Increase (All are significant changes)

<p>Biljmakers, L. A., Basset, M. T., Sanders, D. M. (1996)</p>	<p>Health and Structural Adjustment in Rural and Urban Zimbabwe</p>	<p>Zimbabwe Chitungwiza (urban) Murehwa district (rural)</p>	<p>A longitudinal study on the implications of the SAP in Zimbabwe. Time series comparisons between equivalent seasons in successive years. Both quantitative and qualitative factors are used Use of questionnaires at the household level (300 households in each district) with focus group discussions at the community level 4 clinics and one hospital in Chitungwiza 2 hospitals and 12 rural health centers in Murehwa district</p>	<p>Surveys May-June 1993, 1994 (repeat interviews with the same households)</p>	<p>30 indicators, examples: Health seeking behavior Households' paying for health care Nutrition status of under- five year old children -stunting -wasting Food consumption (quality)</p>	<p>25% reduced clinic and hospital attendance Increased (Murehwa) Decreased (Chitungwiza) Declined Increased Declined Negative</p>
<p>Lundy, Patricia (Feb 1996)</p>	<p>Limitations of Quantitative Research in the Study of Structural Adjustment</p>	<p>Jamaica (Kingston and St Andrew)</p>	<p>Qualitative study Interviews with 56 randomly selected health professionals from Jan to April 1992, focusing on primary health care.</p>	<p>Survey Jan-Apr 1992</p>	<p>Access to basic resources Maintenance of buildings Demoralization among staff Use of private health care Emigration of health staff</p>	<p>Declined Decreased Increased Increased Increased</p>

<p>Jayarajah, Carl Branson, William Sen, Binayak (April 1996)</p>	<p>Social Dimensions of Adjustment, World Bank Experience, 1980-93</p>	<p>53 countries divided into four regions: Asia, Middle East and North Africa, Latin America, Sub- Saharan Africa</p>	<p>Cross-country study of all the evaluated adjustment operations supported by the Bank in 1980-93 (114 operations in 53 countries).</p>	<p>IMF, <i>International and Government Finance Statistics</i>, and World Bank data</p>	<p>Total expenditure on health - Asia - Middle East and North Africa - Latin America - Sub-Saharan Africa Health as a percentage of total expenditures - Asia - Middle East and North Africa - Latin America - Sub-Saharan Africa Real per capita spending on health - Asia - Middle East and North Africa - Latin America - Sub-Saharan Africa <i>Rate of decline in infant mortality</i> - Asia - Middle East and North Africa - Latin America - Sub-Saharan Africa</p>	<p>Increased Decreased Increased Decreased Increased Decreased Increased Decreased Increased Decreased Increased Decreased Decreased Decreased</p>
---	--	---	--	---	---	--

Mwabu, Germano (Sept 1996)	Health Effects of Market-Based Reforms in Developing Countries	Africa, Asia and Latin America	The paper uses cross-country regression analysis to assess health effects of structural adjustment in developing countries over the period 1980-93, controlling for effectiveness in their implementation. Health outcomes depend on the price per unit of the stock, per capita income, social variables, structural activities and environmental and infrastructural factors. The key variable in the evaluation is the effectiveness of a country in implementing reforms as rated by the Operations and Evaluations Department of the World Bank. For each country in the study, the four dependent variables are infant mortality, under-five mortality, maternal mortality and life expectancy at birth.	World Bank United Nations IMF (103 countries: 50 adjusting (borrowing) 53 non-adjusting (not borrowing) 61 in Africa 28 in Latin America 14 in Asia)	Infant mortality rate Under-five mortality rate Maternal mortality rate Life expectancy at birth	Negative correlation (decreases with successful structural adjustment), but not significant (3/3 models) Significant and negative correlation in 2/3 models. Negative correlation. Significant in 1/3 models. Increased (more for good adjusters than for poor adjusters or non-adjusters) The main finding is the inverse correlation between previous income and health status and mortality rates. The correlation explains why improvements in health have been observed during periods of economic crisis.
Onyeiwu, Steve Shrestha, Hermanta Botero, Claudia (1997)	A Welfare-Based Evaluability Assessment of Structural Adjustment Programs in Africa	43 countries in Sub-Saharan Africa 1980-87	The authors develop a new model using variables representative for SAPs, such as GDP growth rate, per capita GDP, inflation rate, real interest rate, health expenditure, and educational expenditure, to assess the impacts of the SAPs on social outcomes. The objective is to determine whether there is a relationship between adjustment policy instruments and HDIs. It is therefore the sign rather than the magnitude of the coefficient that is of interest. The coefficients are estimated using the ordinary least squares (OLS) method. The models are significant at the 5% level.	IMF, <i>International Financial Statistics</i> , World Bank, <i>World Development Report World Tables</i>	Infant mortality rate Life expectancy at birth Primary school enrollment rate Secondary school enrollment rate	+ Correlation + Correlation for 5 of 8 indicators + Correlation for all but one indicator + Correlation for all indicators (+ Correlation implies that an increase in per capita GDP, increased health expenditure, etc... result in decreased infant mortality rate..)

Rios-Neto, Eduardo De Carvalho, Jose Alberto Magno (1997)	Demographic Consequences of Structural Adjustment: <i>The Case of Brazil</i>	São Paulo, Brazil	Empirical analysis of the short-term determinants of vital rates in São Paulo from 1916 to 1988 (using the Malthusian model.) The variables included in the model are price fluctuations, aggregated production and unemployment rate. The author find that the decline in infant mortality rate and malnourished children in the 1980s is not due to economic growth, but to an increase in social programs and better health care.	Fundação SEADE, Sao Paulo Brasil em Dados, 1991	Marriages Births Infant mortality rate Fertility	+ Correlation (Increase in real GDP) + Correlation (Increase in real GDP) - Correlation (close to zero) - Correlation (Real minimum wage)
Bassett, Mary T., Bijlmakers, Leon, Sanders, David, M. (Dec 1997)	Professionalism, Patient Satisfaction and Quality of Health Care: Experience during Zimbabwe's Structural Adjustment Programme	Zimbabwe	Empirical study through focus group discussions (FGD) with community women of child bearing age and nurses in an urban and a rural area, held in 1993 about three years after policy reform. The question was how the nurses and community women perceive the changes in quality and delivery of health services in relation to SAPs.	Survey 1993 (11 FGD: 7 in Murehwa 4 in Chitungwiza 44 nurses 27 in Murehwa 17 in Chitungwiza 60 community women 40 in Murehwa 20 in Chitungwiza)	Nurse-consumer relationship Drug supply Social standing of nurses Quality of service Illicit sale of services/supply by nurses	Deteriorated Deteriorated decreased Deteriorated Deteriorated Not accepted (No change) The worsened situation is relate to the SAP, both by nurses and community women

<p>Biljmakers, L. A., Basset, M. T., Sanders, D. M. (1998)</p>	<p>Health and Structural Adjustment in Rural and Urban Zimbabwe</p>	<p>Zimbabwe Chitungwiza (urban) Murehwa district (rural)</p>	<p>A longitudinal study on the implications of the SAP in Zimbabwe. Time series comparisons between equivalent seasons in successive years. Both quantitative and qualitative factors are used. Use of questionnaires at the household level (300 households in each district) with focus group discussions at the community level. 4 clinics and one hospital in Chitungwiza. 2 hospitals and 12 rural health centers in Murehwa district.</p>	<p>Surveys May-June 1993, 1994, 1995 (Repeat interviews with the same households)</p>	<p>30 indicators, examples: Average cost of treatment Households' paying for health care Nutrition status of under- five year old children -stunting -wasting Maternity fees Home deliveries</p>	<p>Increased significantly Decreased (Murehwa) Decreased (Chitungwiza) Declined (both) Increased (Murehwa) Increased (both) Increased (Murehwa) No change (Chitungwiza)</p>
<p>El-Ghonemy, M. Riad (1998)</p>	<p>Affluence and poverty in the Middle East</p>	<p>Tunisia, Egypt, Morocco, Sudan, Turkey, Mauritania, Jordan and Algeria</p>	<p>Cross-country study of eight countries in the Middle East that have received at least one structural adjustment loan from the World Bank and the IMF. The indicators used are employment and real wages, ownership of physical assets, cost of living and indicators of health, education and nutrition. The time period stretches from 1975-95.</p>	<p>UNDP and World Bank <i>African Development Indicators</i> (1992) <i>Government Finance Statistics Yearbook</i> 1994 (IMF, 1980-94) Ross et al. 1988</p>	<p>Public expenditure on health (% of total expenditure) Hospital beds per 1,000 population Mortality of children under 5 Rate of change in child mortality</p>	<p>Constant or decreased in 5 countries. Increased in 1 country (Jordan). No information in Algeria and Sudan. Constant (or very small decrease) in all countries, but two. Increased in Jordan and no information in Mauritania. Declined in all countries Faster in 5 countries. Slowed down in 3 (Algeria, Egypt, Turkey)</p>

Gertler, Paul Litvack Jennie (1998)	Access to Health Care during Transition: The Role of the Private Sector in Vietnam	Vietnam	Investigates the <i>income elasticity of the demand for health care</i> . Demand is a function of income, money prices, time prices, qualities, and preferences such as education, ethnic group, and religion. A two-part model is used: the expected number of visits are decomposed into the product of the probability of seeking care times the expected expenditures conditional on seeking care.	Vietnam Living Standards Survey Data (VNLSS)	Public hospital Public clinic Private provider Private pharmacy	+ Correlation - Correlation + Correlation + Correlation The elasticity for commune health center care is the lowest. Since the poor use commune health centers more than others, this suggests that targeting quality improvements to commune health centers will benefit the poor.
Van der Gaag, Jacques, Barham, Tania (Apr 1998)	Health and Health Expenditures in Adjusting and Non-adjusting Countries	Cross-country study of 95 countries	Four groups of countries are investigated: early adjustment lending (EAL), Other Adjustment Lending (OAL), Non-adjustment lending countries with positive economic growth (NAL+), and Non-adjustment lending countries with negative economic growth (NAL-). 1970-1993.	The World Bank, World Debt Tables IMF, Government Finance Statistics	Health expenditures as a percentage of total government expenditures Real per capita public spending on health Private consumption (which is the resources base for private health expenditures) Child mortality (Rate of decline)	EAL increase OAL increase NAL+ decrease NAL- increase EAL increase OAL increase NAL+ no change NAL- increase EAL increase OAL increase NAL+ increase NAL- decrease EAL slower OAL faster NAL+ faster NAL- faster

Kahn, Shahrukh Rafi (1999)	Structural Adjustment and Health	Pakistan	<p>Health expenditures and outcome as well as access to health care are investigated.</p> <p>Health is seen as a function of per capita GDP, total government expenditures on health and remittances.</p>	<p>Pakistan Economic Survey 1995-96</p> <p>World Development Report, Human Development Report, Various issues</p> <p>Human Development in South Asia 1997</p>	<p>Health expenditures</p> <p>Access to:</p> <ul style="list-style-type: none"> - Doctor - Nurses - Hospital beds <p>Infant mortality</p> <p>Child mortality</p> <p>Maternal mortality</p> <p>Life expectancy at birth</p> <p>Nutritional changes</p> <p>Correlation IMR:</p> <ul style="list-style-type: none"> - GDP - Health expenditures - Remittances <p>(All independent variables are in real terms and per capita)</p>	<p>Increased 1971-87 Decreased 1987-95</p> <p>Improved Improved Improved</p> <p>Declined</p> <p>Declined</p> <p>Declined</p> <p>Increased</p> <p>Declined</p> <p>Not significant</p> <p>Negative and significant</p> <p>Negative and significant</p>	
Elounou-Enyegue, P. M., Stokes, C. S., Cornwell, G. T. (Feb 2000)	Are there crisis-led fertility declines? Evidence from central Cameroon.	Cameroon 1987-95	Five criteria are used to test the hypothesis of a fertility decline (see variables). Multivariate analysis is used to decide upon the statistical significance of the variables. Social salience was investigated through focus group discussions.	1995 study (812 women, 520 rural 292 urban)	Fertility decline:	<ol style="list-style-type: none"> 1. Timing of decline 2. Statistical significance 3. Substantive significance (10% threshold) 4. Rural-urban response differentials 5. Social salience 	<p>Consistent with the economic decline and the SAP</p> <p>Yes (Negative correlation)</p> <p>Yes</p> <p>Urban 30% decline Rural 7% decline</p> <p>Purposive fertility adjustments as a consequence of crisis</p>

<p>Onah, H.E. (Mar 2000)</p>	<p>Declining fetal growth standards in Enugu, Nigeria</p>	<p>Enugu, Nigeria</p>	<p>The study, conducted at the University of Nigeria Teaching Hospital Enugu, compares birth-weight of babies born before and after the introduction of the Nigerian SAP. The results were tested for statistical significance. It is also noteworthy that the obstetric care in the hospital was subsidized by the state prior to the SAP. In 1998, only the rich could afford the services at the hospital. The number of deliveries dropped from 2686 in 1984 to 964 in 1998, but the proportion of emergencies increased from 3.7% to 20%.</p>	<p>1984 survey (787 babies) 1998 survey (851 babies) (in 1984, 2474 babies were eligible for the study, but every third were used to make it comparable with 1998)</p>	<p>Average birth-weight Incidence of low birth-weight Durance of pregnancy Numbers of deliveries at the hospital Proportion of emergencies</p>	<p>183 g lighter Increased from 4.3 % to 10.1% Shortened significantly Declined from 2686 to 964 Increased from 3.7% to 20%</p>
<p>Israr, S. M., et al. (Apr 2000)</p>	<p>Coping strategies of health personnel during economic crisis: A case study from Cameroon</p>	<p>Cameroon</p>	<p>The study investigates how health workers were affected by the sudden and severe economic crisis in Cameroon, and the SAP that followed. Focus groups discussions with doctors, nurses, pharmacists and laboratory technicians were used to gather data. Data on trends in salaries and prices were gathered from official government statistics and mission hospitals. Both personnel and government and mission hospitals were interviewed, and the answers were compared.</p>	<p>Official government statistics and mission hospitals (data on trends in salaries and prices) Focus group interviews (12 focus group discussions with health personnel. 78 users of government and mission health facilities were interviewed.)</p>	<p>Health personnel salaries - Government health facilities - Mission health facilities 'Under the table' charges by doctors and nurses Quality of health care Private practice besides regular work Doctors and nurses selling drugs (from unreliable sources, not a part of the essential drugs program)</p>	<p>Decreased by 50-57% Decreased by 5-15% Increased Declined Increased Increased</p>

<p>Garenne, Michel Gakusi, Eneas (Nov 2000)</p>	<p>Health effects of structural adjustment programs in sub-Saharan Africa (Draft)</p>	<p>Ten countries in Sub-Saharan Africa: Senegal Kenya Uganda Ghana Zambia Côte d'Ivoire Madagascar Mozambique Benin Cameroon Rwanda</p>	<p>The study is composed of a series of case studies in SSA, showing trends in child survival before and after SAPs, through 1970 to 1990. $q(5)$, the proportion of live births who die before reaching the age of five, was used as the child survival indicator. 5 countries with increasing, and 5 countries with decreasing, child mortality prior to the SAPs were chosen. The countries were examined one by one and, linear and log-linear trends were fitted in each segment of steady mortality decline or increase. Finally, the significance of mortality trends was tested by stimulating the stochastic process of yearly mortality estimates.</p>	<p>World Fertility Surveys (WFS) Demographic and Health Services (DHS) World Bank Penn World Tables</p>	<p><i>Declining</i> child mortality prior to SAP: Senegal Kenya Rwanda Cote d'Ivoire Cameroon <i>Increasing</i> child mortality prior to SAP: Benin Ghana Madagascar Uganda Zambia</p>	<p>Trend in child mortality after the implementation of SAPs: Decline Decline Decline Decline Halted Decline Decline Decline Increase The authors conclude that SAPs have had none or a positive effect on child mortality trends.</p>
---	--	--	---	--	---	---