EFFECTS OF MACROECONOMIC POLICIES (FISCAL, TRADE, EXCHANGE RATE, STRUCTURAL ADJUSTMENT ETC) ON HEALTH AND HEALTH INEQUALITY[1]

BY

S. Ibi Ajayi

Department of Economics,

University of Ibadan,

Ibadan, Nigeria

9 JULY 2009

[1] This is a revised version of the paper presented at the "Health, Economic Growth and Poverty in Africa: Framework Papers Review Workshop", Accra, Ghana, April 20-22, 2009.

I. Introduction

We have learnt a great deal over the last several years about the impacts of macroeconomic policies on important macroeconomic variables. The mechanism through which macroeconomic policies work to affect different aspects of the economy continues to generate concerns among policy analysts and policymakers in developing countries, especially in Africa. It is known that macroeconomic policies do not often confer the anticipated positive benefits in the desired direction. Sometimes, the impacts of macroeconomic policies are sensitive to the choice of countries, time periods and proxies that are used, in particular for health[2]. Indeed macroeconomic policies may impact health outcomes negatively; create inequality and some other undesirable effects which may affect social wellbeing. It is on the basis of the uncertainty of macroeconomic policies effects on health (health outcomes) and health inequality that a deeper understanding and analysis of the transmission mechanism from macroeconomic policies to health outcomes becomes necessary.

Macroeconomic policies address the overall aggregates of the economy[3]: prices, output, employment, investment and savings, government balances and balances on the external account. The goals of macroeconomic policies can and do vary[4]. They include creating conditions for sustained growth[5]; price stabilization or inflation control; reducing unemployment, correcting aggregate and sectoral imbalances, reducing poverty and providing greater equity for all especially the marginalised[6].

The three major policy instruments to manage the macroeconomic aggregates are fiscal policy, monetary policy and exchange rate policy. Fiscal policy covers a gamut of matters such as taxation, and other methods of resource mobilization and levels as well as the patterns of

[2] See Christopher J. Ruhn (2006), "Macroeconomic Conditions, Health and Government Policy," National poverty Center Working Paper Series, Number 06-26
[3] See Ghosh (2007) for details.
[4] See Jayati Ghosh (2007), "Macroeconomic and growth Policies," United Nations, Department for Economic and Social Affairs (UNDESA)
[5] Sustained growth (especially of the pro-poor type) is a necessary condition for poverty reduction in developing countries.
[6] These quantitative objectives of policy are not often achieved simultaneously as there are possible conflicts between the goals. The celebrated trade-off between unemployment and inflation is well-known in the literature.

expenditure. Concretely, fiscal policy relates to the set of government strategies for revenue collection and expenditure and they play a critical role in determining both the level and the pattern of economic activity. They affect growth prospects as well as income distribution in important ways. The means by which public resources are mobilised, and the extent to which they are increased affect the incomes of different sectors of the society and the ability of the government to spend. The pattern of government expenditure affects directly the potential for future economic expansion because of the critical role of public investment in infrastructure, for example, but it also affects the material as well as the social conditions of society[7]. Government can use fiscal policy to encourage healthy behaviour in important ways. The general instruments for this purpose are taxes and subsidies and direct provision of certain health services either for free or at subsidized rates[8]. Monetary policy basically addresses the issues of interest rates and the level of aggregate credit and its availability in the economy. In open economies, exchange rate policy is related largely to monetary policy. It has been pointed out that developing countries are highly susceptible to exchange rate changes because of their dependence on imports for intermediate capital inputs[9] and imports of drugs. The exchange rate policy of government is therefore of great importance as it can affect not only the availability of imported drugs but its price as well as its distribution. It may therefore have significant influence on health outcomes.

Each of these instruments of macroeconomic policy taken on its own can have great impacts on health outcomes. Macroeconomic policies may affect the environmental processes which in turn affect health outcomes. For example, macroeconomic policies may have major effects on the environment and on people's health. Trade and fiscal policies may indirectly impact on health outcomes by affecting income levels and its distribution. Other policies of the macroeconomic type may affect land, land and water resources and through these processes affect health outcomes.

Whether the objectives of macroeconomic policies are attained or not are often judged by examining a number of macroeconomic performance indicators. It is however known that

[7] See Ghosh (2007).
[8] See Rachel Nugent and Felicia Knaul, "Fiscal Policies for Health Promotion and Disease Prevention.
[9] See Dzator and Hopkins

macroeconomic policies changes have profound implications on household decisions on health, nutrition, schooling, labor force participation and fertility among others (Orbeta and Alba, 1997).

Macroeconomic policies (monetary, trade, fiscal and exchange rate) together with structural reforms have major consequences for the social wellbeing of societies in its sectoral impacts (on health) and in terms of inequality (on health). The state of the macro-economy impinges upon health by affecting the actual and the expected values of the variables that determine health. The nature of the impact of the macroeconomic variables on health or proximate determinants of health is complex because they operate through the whole economy with delayed action and retroactive effects[10].

Macroeconomic policies affect health and health care in many ways among which are: through government spending on social programs (for example, health care, nutrition, and education) which directly and indirectly impacts health; through tax policy provisions related to health insurance premia and excise taxes on tobacco, alcohol and firearms, all of which affect how many people have insurance and how many people become ill, and through exchange rate policy which directly affects among others the prices of imported vaccines and medicines**,** prices of food stuff and therefore the level of dietary intake. These concerns make the issues of macroeconomic policies and the linkage to health an important aspect of policymaking.

Health is believed conventionally to improve during economic expansion and deteriorate during economic downturns. The empirical evidence on which this assertion is based is reportedly weak and is derived from studies having methodologies problems that are very difficult to rectify[11]. Some points are worth highlighting upfront. First, a large body of epidemiological research examines how changes in individual economic status are related to a person's health. The line of enquiry asks how macroeconomic conditions affect health outcomes. Second the diverse dimensions of health may be affected by a variety of mechanisms that have heterogeneous impacts across segments of the population. It is therefore true that macroeconomic conditions need not uniformly affect all aspects of health or sectors of the population.

[10] See Ajayi (1992).
[11] See Janet Dzator and Sandra Hopkins " Macroeconomic policies and health in developing countries"

II. The Objectives and the Organization of the paper

The main objective of this paper is to present the literature review on the effects of macroeconomic policies on health and health inequality. The literature on this subject addresses the relevant issues in terms of macroeconomic policies developed within the context of structural adjustment or stabilization programs in developing countries. Specifically, the objective of the paper is to:

- Present a general framework for analyzing the relationship between macroeconomic policies and health outcomes, and to review the existing theoretical as well as empirical literature on this framework.
- Analyze the claim that stabilization and structural adjustment programs have adverse impacts on health outcomes.
- Present country case studies on the effects of structural adjustment programs on health.

The paper also provides analyses and empirical results on health inequality. The paper identifies topical research issues/questions which are pertinent to Africa.

The rest of the paper is organized as follows. In section III, I present some stylized facts on the effects of macroeconomic policies on health. Some of the basic issues are identified upfront in this section. Identifying the linkages between macroeconomic policies and health is the theme of section IV. In this section is discussed the simple linkage between growth and health and vice-versa. The intermediate variables between macroeconomic polices and health are identified and discussed. Discussed are household characteristics, the supply and costs of health care; and environmental factors. Also discussed in this section is the evidence on government expenditure cuts and health outcomes. The theme of section V is macroeconomic policies (Structural adjustment policies) and health Outcomes: What does the literature say? Discussed here are the mixed results of macroeconomic policies and health outcomes in particular during the structural adjustment programs for many developing countries. Discussed in section VI is health inequalities. How large are these inequalities? What are the evidences from Africa? Section VII contains the Summary and Conclusions and areas for further research.

III. Some stylized facts on the effects of Macroeconomic policies on health

Before reporting on the theoretical and empirical analyses of the impact of macroeconomic policies on health and health inequality, there are a number of stylized facts which must be discussed upfront.

First, the relationship between macroeconomic variables and health outcomes is unusually complex. The relationship is complex "not only because they are inextricably intertwined with social values, but also because health is a very personal matter that shapes our daily lives."[12] Many of the influences are indirect and can sometimes be felt after a substantial elapse of time.

Second, macroeconomic theory does not precisely provide guidance on the appropriate measurement of health outcomes. Various indicators are therefore utilized to measure health outcomes. Thus, health status or health outcomes are measured by the nutritional status of certain groups in the society. Often mentioned in this regard is the health status of children. Other indicators used in the literature are life expectancy, infant mortality (including under-five mortality), morbidity, disease patterns, malnutrition etc. The implication of the multiplicity of these various indicators for health outcome in the absence of a universally accepted yardstick of measurement can lead to different results and interpretations. The diverse dimensions of health may be affected by a variety of mechanisms that have heterogeneous impacts across segments of the population. Macroeconomic conditions therefore need not uniformly affect all aspects of health or sectors of the population.

Third, the issue connected with methodologies. Various techniques of measurement have been used in the literature with doubts sometimes on the appropriateness of such techniques. Such techniques as utilized in the literature include cross-country models usually regression analysis, computed general equilibrium models and macroeconomic simulation models. The methodology that is used is often based on the nature of data and the objective of the research. Each methodology that is utilized has its own merits and demerits. Fourth, some of the conclusions in

[12] See Hsiao (2000).

the past have been based on simple association between broad measures of economic performance and health indicators rather than on rigorous tests of particular transmission mechanism from macroeconomic policies to health outcomes. Fifth, there is the issue of time span. The question is what time horizon is important for the analysis? There are for examples different dimensions of malnutrition, for example, - wasting captures short term impacts while stunting is indicative of long term under nutrition. Some of the periods covered in some of the studies are too short to observe changes in either the variables of interest or change in behavior. Sixth, given that the relationship between macroeconomic adjustment policies and health outcomes is complex, the incidence of macroeconomic policies on health has to be sought at a relatively disaggregated level and not necessarily for the population[13].

IV. Identifying the linkages[14]

As mentioned earlier, one of the major objectives of macroeconomic policies is economic growth with its attendant effect on poverty reduction. It is known that health and economic growth are inextricably interwoven. On theoretical ground they interact in important ways with health affecting economic growth and economic growth affecting health[15]. Health is an important component of human capital in the sense that investment in health has important direct effects on productivity and thus on economic growth. Bloom and Canning (2000, 2003) have shown that healthier individuals might affect the macroeconomy in four ways: (i) They might be more productive at work and so earn higher incomes (ii) They may spend more time in the labor force, as less healthy people take sickness absence or retire early; (iii) They may invest more in their own education, which will increase their productivity; and (iv) They may save more in expectation of a longer life – for example, for retirement – increasing the funds available for investment in the economy[16].

In the process of clarifying linkage between macroeconomic policies and health outcomes, three broad groups of intermediate variables are often identified as relevant to the evolution of health status in a society. These are significantly influenced by macroeconomic shocks and

[13] For more details see H. Genberg, Chapter 2 in WHO (1993).
[14] This section has benefited from Ajayi (1992) and WHO (1993).
[15] See Ajayi (1992).
[16] For more details on the linkage See Anyanwu and Erhijakpor (2007).

adjustments[17]. These are household characteristics (family income, education, fertility and use of health services), supply and cost of health services (government expenditure (current and capital) on the health sector, the cost of the imports of medicine and medical equipment, pharmaceuticals and level of user charges) and crucial environmental variables (sanitary conditions, clean water accessibility, living conditions etc).

As determined by the analyses, macroeconomic developments have significant impacts on these variables. The precise nature and the magnitudes of the effects of macroeconomic changes on these variables depend on the structure of the economy being examined, the exact nature of the disturbance and the location (in terms of economic activity) of the vulnerable groups in society, especially children and the elderly. On the basis of theory, one would not expect the relationship between macroeconomic changes and imbalances, adjustment policies and health outcome to be exactly the same in all developing countries.

(a) The household Characteristics[18]

The household characteristics are the ones that are felt directly by the household. Included in the category are the level of income, the level of education, fertility and expenditures on health services by the household. At the level of the household, income is an important constraint for the level of nutrition[19], and other health-related expenditures and for the utilization of available health services. Income is certainly more of a binding constraint for groups with the minimal level of income[20]. Evidences from many countries show that income is the most important constraint. In a study by Mazur and Sanders (1988), variation in the three dimensions of children nutritional status (weight for age, height for age, and weight for height was explained principally through a consideration of the socioeconomic status of parents (education, economic activities, income and housing status. Since education and housing status are strongly correlated with income, this suggests that income is a primary determination of nutritional status[21].

---

[17] See Chapter 2 in WHO (1993).
[18] This section has benefited from H.Genberg (1993), "Macroeconomic Adjustment and the health sector: A Review " in WHO (1993).
[19] There is need to point out however that increasing income may not lead to improved nutrition.
[20] In high income countries, basic nutritional and health care needs are satisfied even if a decline in income occurs. This is not necessarily so for households in developing countries that are close to the poverty line.
[21] See Rob Davies and David Sanders (1993)

The level of education has both direct and indirect influences on health outcome. Education has direct influence on the income earning potential of the individual not only in the formal but also in the informal sector. Female education and literacy has repeatedly been shown in cross-sectional studies to be associated with reduction in rates of infant and child mortality. One of the ways through which female literacy leads to better health is improved child care and a possible reduction in fatalistic attitudes towards diseases and a greater willingness to utilize health services.

In the case of the relationship between fertility levels and infant mortality, it has both direct and indirect impacts. Fertility has an important influence on infant mortality in developing countries through its effects on child spacing and maternal health: the closer the birth interval, the higher the risk of mortality for existing young children (Hobcraft et al, 1984; Bongaarts, 1988). The use of health services by the household is influenced partly by income and partly by education. The expenditures on health services are in turn determined by the cost of such services. There are direct and indirect costs. The direct costs are the charges for medical services and medicines. The indirect cost of health care arises from the time that is required to visit hospital or health care centers. Such costs may indeed be substantial[22].

(b) The Supply and Costs of Health care

There is no doubt about the fact that the availability and costs of health services affect the health status of a population. As a result of this fact, an important role in supplying health services is played by the public sector in developing countries. Health outcomes are dependent on government outlays in health, while the resources available to government are often an important constraint[23]. This then means that the total amount of resources expended by government on the health sector is likely to be an important determinant of the overall health status of a country.

Another influence on the cost of health services is the cost of imported pharmaceuticals and medical equipment. It is this cost that determines the ability of household to afford certain

[22] The cost may be especially very high where health centers are far away; and a significant amount of the household resources is involved.

[23] It is to be noted however that better utilization of existing public resources can bring about an improvement in the health care delivery system and on health outcomes.

treatment. The imposition of user charges is an important determinant of the ability of the individual household to make use of health facilities/services. While it is important to recover the costs of publicly supplied services by means of user charges in many cases, it is to be noted that the health outcomes of some groups in the society may, however, be negatively affected.

(c)Environmental factors

The environmental variables are exogenous to the individual decision unit. For example, access to clean water is determined by investment in infrastructure in the economy. The extent to which such investments are made is subject to government budget constraint. Overcrowding is an aspect of living conditions in urban areas which may affect health outcomes by facilitating the spread of diseases. Economic policy may inadvertently be responsible for overcrowding if policies promote industrialization that is mainly concentrated in cities.

(d) Government expenditure cuts and health outcomes

In many structural adjustment programs, a cut in the expenditures of government often occurs. In some cases, the first candidate for cuts in government expenditures is the social sector- health and education. There are, however, not enough empirical support for this position and the available empirical evidence on the relationship is rather weak. In a joint World Health Organization/World food Programme study (1988) on the health impacts of adjustment programmes in the African region, in more than half the case studied, the health sector has been the first to suffer a cutback when there were budgetary constraints. In another study of 37 developing countries for various periods between 1972 and 1980, Hicks and Kubisch (1983, 1984) found that the social sector were those most protected from cuts in government expenditures as compared to other sectors like defence, production and infrastructure. They also found out that expenditure on the social sectors tended to be more protected in low-income countries.

There are a number of studies outlining the relationship between government expenditures in health and health outcomes. Some of these studies concentrate on total government expenditures and health outcomes while some concentrate on government expenditure cuts and health outcomes. The causal relationship between health expenditures and health outcomes has

continued to attract the attention of many analysts. The several years of intensive study notwithstanding, there is no general consensus regarding the positive casual relationship between expenditures in health inputs and health outcomes. There is no one-to-one correspondence. Indeed, there are conflicting views on the effect of health expenditures on health outcomes[24].

A growing body of literature in recent times examines the link between health expenditures and health outcomes especially as it affects under five mortality and infant mortality. A range of effects are documented in these studies - from no impacts to limited impacts and to impact on only specific interventions. The works by Filmer and Pritchet (1997) and Filmer et al (1998) among others find the contribution of health expenditures to health outcomes (measured by infant or child mortality) to be either small or statistically insignificant. Other studies by Or (2000,a,b,) Baldacci et al (2002), Berger and Messer (2002) find a positive relationship between spending on health and health outcomes.

In the work by Cornia et al (1987), there were evidences from case studies showing a direct association between cuts in government expenditures on health and other social services and health outcomes. Using ten countries – Botswana, Brazil, Chile, Ghana, Jamaica, Peru, Philippines, the Republic of Korea, Sri Lanka and Zimbabwe, they showed that nutritional status of children deteriorated in all the countries, except in the Republic of Korea and Zimbabwe. The case of Zimbabwe is very interesting. In the period 1980-85, Zimbabwe experienced an increase in per capita GDP of about 2 percent annually. While health expenditures increased marginally, the pattern of spending changed. The share of preventive services rose while the share of medical services fell. As a result of the general re-orientation, Zimbabwe recorded a notable improvement in health status especially among children.

A recent paper by Anyanwu and Erhijakpor (2007) shows the importance of government expenditures for health outcomes. The basic equation utilized examines the direct impact of government health spending on health outcomes where health outcomes are proxied by (a) under-five mortality and (b) infant mortality rates. The under-five mortality rate (U5MR) is the

[24] It is known that government expenditures are not often cost effective, and some times inefficient. These may be a great impediment.

number of deaths per 1000 of the total population. The infant mortality rate (IMR) refers to the number of deaths per 1000 live births. Using panel data for 47 African countries between 1999 and 2004, the paper provides support for the proposition that total government expenditures on health matter for health outcomes. The paper underscores the fact that government health expenditures have significant effects on health outcomes.

V. Macroeconomic Policies and Health Outcomes: What does the Literature Say?

Many developing countries experienced growth and development in the 1960s and 1970s. By the 1980s, a number of these countries started to experience macroeconomic imbalances that required correction. The major policy responses to these crises in the 1980s and 1990s were in the form of stabilization and structural adjustment programs. The adjustment policies or structural adjustment programs as it was popularly called in all countries are a set of stabilization and adjustment polices designed to change production and market structures of the poorly performing economies in order to increase exports and promote rapid growth. The reform policies consist of fiscal and monetary contraction, devaluation, freezing of wage demands, liberalization and deregulation polices.

Specifically, most economists would subscribe to the inclusion of the following in a macroeconomic adjustment program[25]:

- *Monetary restraint* aimed at reducing the growth of absorption and the rate of inflation.
- *Interest rate policies* aimed at keeping real interest rates positive but low.
- *Fiscal restraint* to reduce the fiscal deficits to a sustainable level and thereby restrain aggregate demand pressures.
- *Exchange rate action* to ensure a real exchange rate that improves international competitiveness and creates the incentive for expanding the production of internationally tradable goods.
- *External financing policies* to reduce the stock of external debt if it is perceived to be currently unsustainable, or to limit foreign borrowing if it is likely to become so in the future.

[25] See Mohsin S. Khan et al (1991) p.2.

- *Structural reform* (such as financial sector reforms, producer pricing policies, trade liberalization, and tax reform) to make the economy flexible and efficient.

Stabilisation and structural adjustment reforms are required to fix gross economic imbalance – internal and external. These policies will of course have social impacts. Fiscal contraction and reduced role of government in the provision of many goods and services during reform have caused concerns about the reduction in the provision of social services such as health. The resultant effect of reduction in government activities is worsening health outcomes.

As a result of the complexity of macroeconomic policies and its objectives and effects, a number of classifications are often used in order to provide a framework for our understanding of the evolution of such policies. In the paper by Cornia (1992), the progression of macroeconomic adjustment over time is described distinguishing among three different generations. In the early 1980s, a first generation of macroeconomic policies maintained fiscal and monetary objectives, the main goal of which were the liberalization of the economy and the liberalization of the market. No provisions were made to protect either the social sector or the vulnerable populations. The second generation of adjustment policies expanded supply policies across sectors including industry, agriculture, health and education etc. The World Bank report (1990) officially recognized the need for social funds and by 1991 macroeconomic policies included at least one condition which was specific to health. The third generation of adjustment aimed at the integration of economic and social objectives with the explicit objective of protecting the social sector, mainly health and education.

There are conflicting views on the impacts of structural adjustment policies on health. There are three distinguished views on the impact of policies on health. In the first category are those who think that the policies have negative effects; while the second category consists of those who think it has a positive effect while in the third category are those who are uncertain of the impacts of structural adjustment programs on health. Several analysts stressed that the structural adjustment policies adopted in developing countries in the 1980s were having a markedly deleterious effects on health and nutrition among the poor of the countries that have embarked on these programs. Such an array of studies include Jolly (1985, 1988); Jolly and Cornia, (1984);

UNICEF, (1984); Inter-American Development Bank, (1985); and the World Food Council, (1985).

By the mid-1990s, an extensive body of literature existed on macroeconomic adjustment policies and health outcomes. Two major streams of research emerged. The first focused on the impacts of the adjusting economies on health outcomes. In the late 1980s, a warning bell was sounded in the report *Adjustment with a human Face* by Cornia et al, (1987). This report pointed out that the earlier gains of the 1970s in child nutrition and health were being eroded as a result of the situations arising from structural adjustment programs. The study essentially brought together data on trends in infant mortality rates, nutritional status and morbidity in several developing countries and provided explanation of these trends by comparing them with the evolution of such macroeconomic indicators as real wages, pattern of government expenditures and the level of subsidies[26]. This report received international attention. Researchers and public health activists responded with a call for the protection of the community especially that of the poor and vulnerable population such as children. The authors called for special measures to mitigate the impacts of adjustment program on the poor. These measures were designed to raise the consumption level of the poor to the basic-needs minimum during the structural adjustment period when constraints on consumption levels in general were greatest.

Increasingly over time, a number of studies have continued to deepen our knowledge on the impacts of macroeconomic policies on health and health inequality in general. Researchers have attempted to assess whether policies have negative impacts on health through either the deterioration of socioeconomic conditions or the dismantling of public care systems which are often noticeable in hospitals without equipment and drugs. The results of the empirical work have been inconclusive in a lot of cases.

The second strands of research concentrated on changes in care health systems among countries undergoing health sector reforms. In the 1980s and 1990s health systems in Sub-Saharan Africa

[26] The interpretation that was given to the data suggested a relationship between the evolution of health indicators and the macroeconomic hardship in the early part of 1980s. Given the fact that the analysis was not done on the basis of well articulated statistical analysis or model of links between macroeconomic fluctuations and health outcomes, it is difficult to be confident that that the associations between the variables are really indications of cause and effect (see WHO, (1993).

were collapsing. The World Bank became a major player in the field of international health both as donor and policy adviser. Not everyone welcomed the entry of the World Bank into the health sector. Researchers turned attention to studying the effects of health care reforms in order to assess changes in access to and utilization of health services and whether the quality was improving.

A recent review of the literature prepared for the World Health Organization (WHO) Commission on Macroeconomics and Health surveyed the debate including the empirical evidence and methodological approaches that were adopted (Breman and Shelton, 2001). The results are worth mentioning. A total of 72 articles were reviewed. The empirical evidence presented both negative and positive outcomes. Among 28 empirical studies, the two most widely studied outcome variables were public health expenditures and child mortality. Other variables studied were malnutrition, life expectancy and maternal mortality. In these studies, both positive and negative outcomes were analysed. Third, studies were divided evenly into a case study approach or cross-country analysis. In the case of country case studies, negative effects were reported, while in the cross-country approach, both positive and negative effects on health were reported. Finally, there were no discernible trends with respect to region except in Africa which generally displayed negative outcomes.

A number of individual African countries have been studied in recent times. They include Kenya, Zimbabwe and the Cameroon. The study by Oduwo et al (2000), seeks to investigate the impact of macroeconomic adjustment policies on the health care systems in Kenya. Generally, all the indicators of health outcomes utilized worsened in the period under study. The study shows that people's ability to pay for health services were affected negatively by the structural adjustment policies in place. The health system study also shows reduced expenditure on health which also affected health outcomes negatively.

In a paper by Solomon and Ezzati (2006) titled "Health Impacts of macroeconomic crises and policies: determinants of variation in childhood malnutrition trends in Cameroon," the authors examined the effects of economic crises and adjustment programs during the 1990s in Cameroon on childhood malnutrition in population subgroups and evaluated the household and health

system mediators of these effects. The authors came to the conclusion that the negative nutritional effects during economic crisis and adjustment programs of the 1990s in Cameroon were largest among children of low socioeconomic status. Using pooled cross-sectional data, the results showed the prevalence of malnutrition in children younger than 3 years increased from 16 percent to 23 percent between 1991 and 1998. The increase in urban areas from 13 percent to 15 percent mostly occurred in children of low-educated mothers. The increase in rural areas from 19 percent to 25 percent mostly occurred in boys, born to low-educated mothers and those of low income status.

In the study on Zimbabwe, Neddy Matshalaga (2000), examined how changes in macroeconomic policies have shaped health outcomes particularly with regards to diarrhoea, malnutrition, maternal mortality and access to health services, and how these health outcomes vary by income, geographical location and gender. The macroeconomic policies adopted in the period of structural adjustment program tended to have negative effects on the health outcomes. Results of the study show a positive relationship between the prevalence of diarrhoea, malnutrition and access to health facilities with income levels, rural/urban location and gender.

In a way, the structural adjustment policies or macroeconomic changes may be related to shocks. In a paper by Ferreira and Schady (2008), they provide a summary of findings of a set of studies related to the health and education impact of negative aggregate economic shocks in developing countries. From the study, aggregate economic shocks tend to have positive effects on health outcomes in rich countries and negative outcome in poorest countries. In the case of middle-income countries, the health outcome is negative. A conceptual framework is used by Ferreira and Schady to interpret the results. A negative economic shock has an income effect but also induces changes in behavior that depending on the availability of instruments which enables households to smooth the negative income impact of a downturn, may lead to improvements in health outcome. The negative income effects tend to dominate in developing countries leading to the reported negative outcomes. Concentrating on poor countries, negative impact health outcomes occur in Nicaragua, India, Cote d'Ivoire, Zimbabwe, Ethiopia, Tanzania and Cameroon.

Baird, Friedman and Schady (2007), analyze the relationship between unexpected changes in per capita GDP and infant mortality in large samples of developing countries. Drawing on a dataset that covers 1.7 million births in 59 developing countries, they find that on the average, a "one unit decrease in log GDP is associated with an increase in mortality of between 18 and 44 infants per 1,000 children born." They also found that contractions have a higher negative impact on infant mortality rates than the positive impact of expansions. In addition, the paper also shows that the negative impact during contraction and positive impact during expansion is much higher for girls than it is for boys.

VI. Health Inequalities

Inequalities in health have recently been receiving attention in the developing world. The question is how large are these inequalities and what are the factors bringing about inequalities in health? This section tries to provide some answers from what is available in the literature. The main focus here however is on Africa since one of the framework papers will address health inequality across populations of individuals[27].

It is well-known that unequal access to health services by income group, rural/urban location and gender as social stratifiers result in health outcomes that are lower for the disadvantaged group[28]. In general, large inequities in accessing health care exist in all countries in varying degrees. In many cases, the inequalities are brought about by policies or indeed the absence of policies in rare cases. Inequality has been advanced as one of the factors responsible for the slow pace of Africa in meeting the health target of the MDGs by the year 2015[29]. What is clear is that all societies have social hierarchies in which economic as well as social resources in addition to prestige and power are distributed unequally. The inequity created by such unequal distribution or unequal access constitutes a deprivation and a restriction to the type of lives people will want to and should live. It has been stated that where inequities in health care are avoidable and yet are not, they are inequitable.

[27] See the Framework Paper by David E.Sahn.
[28] See Mutangadura (2008)
[29] See ECA (2007), The Millennnium Development goals in Africa: Progress and Challenges. Addis Ababa

In a paper done at the World Bank by Wagstaff (2002), it is shown that large but varying inequalities in health exist across countries. The author explores the reasons for the inter-country differences and concludes that large inequalities in health are not apparently associated with large inequalities in income or with small shares of publicly financed health spending but is associated with higher per capita incomes. Evidence from developed and developing countries support the notion that health inequalities rise with rising per capita income.

In order to contextualize the issue of inequality especially in Africa, it is appropriate to tread through a familiar terrain by looking at the global efforts to improve health equality. The first of this Initiative was in 1970 when the World Health Organization launched the Health-for-all program. In the Alma Declaration of 1978, state members of the WHO committed themselves to achieving health for all by the year 2000. The Declaration emphasized the importance of equity, economic and social development, and the crucial role of primary health care. Each country was encouraged to formulate national policies and strategies for health. A renewal by members of the World Health Assembly of the commitment of the Alma-Ata took place in 1998. Members affirmed the need to give effect to the health for all policy in the 21st century. The health-for-all policy emphasised the importance of reducing social and economic inequities in improving the health of the whole population and in particular paying the greatest attention to those who are mostly in need and are burdened by ill-health, receiving inadequate services for health or affected by poverty.

In Africa, governments have repeatedly emphasized the importance of bridging health inequalities by improving access to health for all. The most recent of the commitment of African leaders was at the Ordinary Session of the ministers of Health of the African Union in April 2007 in Johannesburg, South Africa. The session focused on the theme “Strengthening of Health Systems for Equity and development.” In the declaration which the Ministers made at the end of the meeting, they renewed their commitment to strengthening health systems for equitable health outcomes, and specifically to develop social protection systems, particularly for the poor and vulnerable groups in the society. In collaboration with African Union Commission, regional health organizations, United Nations Agencies, private sector, development partners and other

international and civil society organization, the Ministers pledged to implement the Africa Health Strategy.

The decisions and agreements notwithstanding, there are glaring intra-country differences in access, and utilization of health care based on income, gender, urban-rural populations and between dominant and minority groups.

In a comprehensive study, Mutangadura et al using bivariate analysis of Demographic Health Survey data identifies the main sources of inequalities in accessing health care in some selected African countries[30]. The findings show health inequalities to be a serious issue in each of the countries in the sample. In all the countries, women from the poorest quintiles are less likely than those in better off quintiles to use basic health services such as prenatal care, modern contraceptives, delivery assistance by a health professional and immunization. The health indicator with the greatest inequalities due to economic reasons is delivery assistance by health professionals. The findings also show striking evidence of rural to urban disparities in accessing health services in all countries.

The policy implications of inequality in health in Africa are many. Suffice to mention the following:

(i) There is need for health plans to become equity focused.

(ii) It is not only sufficient to have geographical access, there is need also for financial access.

(iii) There is need to increase resources to health which is presently low in many of the countries. Many of the countries have failed to adopt the Abuja agreement of 2001 which requires 15 percent of budget to be devoted to health.

(iv) There is need to address the rich-poor dichotomy in health care. Also important is the need to address the urban-rural inequalities.

[30] The countries in the sample include Ethiopia, Kenya, Ghana, Senegal, Zambia, Malawi, Egypt, Morocco, Chad and Cameroon.

(v) The differential status accorded men and women in almost all societies across the globe is said to be the single most pervasive and entrenched inequity. This represents a pressing societal issue to be analyzed and addressed for health.

VII. Summary and Areas for further research

(a) Summary

At the risk of some repetition, the highlights of this paper can be mentioned.

- Macroeconomic policies do not often confer the anticipated positive benefits in the desired direction. Indeed macroeconomic policies may impact health outcomes negatively, create inequality and some other undesirable effects which may affect social wellbeing.
- Macroeconomic policies can have great impacts on health outcomes. The nature of the impacts of the macroeconomic variables on health or proximate determinants of health is complex because they operate through the whole economy with delayed effects. The relationship between macroeconomic variables and health outcomes is complex because health is a personal matter that shapes our daily lives. Many of the influences are indirect.
- Macroeconomic theory does not precisely provide guidance on the appropriate measurement of health outcomes. Various measures of measuring health outcomes exist in the literature. The implication of the multiplicity of these various indicators is the absence of a universally accepted yardstick of measurement is the subjective interpretations of results that may arise.
- The relationship between macroeconomic adjustment policies and health is complex and the incidence on health is better sought at a relatively disaggregated level and not necessarily at the aggregative level..
- In trying to clarify the linkages between macroeconomic polices and health outcomes, three broad groups of intermediate variables are identified. These are household characteristics, supply and costs of health services and crucial environmental factors.
- There literature on the impacts of adjustment program on health outcome is extensive. The results of impacts arising from them are conflicting. Suffice to say, however, that the individual country reports for some African countries show that structural adjustment programs impact health outcomes negatively.

- At the level of policymaking, there is need for creating incentives for efficiencies in the healthcare system; and managing constraints in government budgets.
- There are health inequalities around the world. Large inequalities in accessing health exist in all countries in varying degrees. For Africa, there is inequality based on income, gender, and geographical location.

(b) Areas for Further Research

There are a number of areas that we do not know and further research in the future should focus upon. These include the following:

(a) The transmission mechanism from macroeconomic policies to health outcome variables. There is need for the development of appropriate models to examine the transmission mechanism.
(b) How can the macroeconomic policies be made more effective and minimize the possible negative impacts on health outcomes?
(c) Measurement of health outcomes – should it be based on disaggregated data?
(d) What methodologies should be used to measure health outcomes?
(e) There is need for a case-by-case approach for each country. What form should the approach take?
(f) How do we increase the resources for health?
(g) How can we relate health and health expenditures to socioeconomic development?
(h) Is the amount of resources devoted to health the determinant of health outcomes? What is the empirical result for individual countries?
(i) There is need to discuss the extent to which the effects of macroeconomic conditions differ across population groups and explain the sources of disparity.

References

Ajayi, S. Ibi (1992), International conference on Macroeconomics and Health in countries in Greatest Need: Report of the Rapporteur, Geneva, Switzerland, World Health Organization.

Anyanwu C. John and Erhijakpor E. O. Andrew (2007), "Health Expenditures and Health outcomes in Africa", Economic Research Working Paper No. 91 African Development Bank.

Arunanondchai Jutamas and Carsten Fink (2007), "Trade in Health Services in the ASEAN Region," World Bank Policy Research Working Paper 4147.

Baird Sarah, Jed Friedman, and Norbert Schady (2007), "Aggregate Income Shocks and Infant Mortality in the Developing World". Seminar paper presented at the Center for Global Development for comments.

Baldacci, E., M.T. Guin-Siu and L. de Mello (2002), "More on the effectiveness of Public spending on health care and education: ACovariance Structure Model", IMF Working Paper WP/03/90. Washington: IMF.

Berger, M.C. and Messer, J. (2002), "Public financing of health expenditures, insurance and health outcomes", Applied Economics, V.34, issue 17, November, pp. 2105-2113.

Bloom, D.E. Canning, D. (2000), "The health and Wealth of nations", Science, 287, 1207-1209.

Bloom, D and David canning (2003), "The health and poverty of Nations: From Theory to Practice," Journal of Human Development, Vol. 4, No.1, pp.47-71.

Blouin Chantal, Mickey Chopra and Rolph van der Hoeven (2009), Trade and Social determinants of health. Retrieved on 3/30/2009 from http://www.the lancet.com

Bongaarts, J. (1988), "Does family planning reduce infant mortality rates?" Population Development Review, 14, 188-190

Breman, A. Shelton, C (2001), Structural adjustment and health: a literature review of the debate, its role-players and presented empirical evidence. Commission on macroeconomics and Health Working Paper series, no. WG6:6, World Health Organization, Cambridge, MA., USA. 53 pp.

Cormia, Giovanmi Andrea, Richard Jolly and Frances Stewart (1987), Adjustment with a Human Face, Volume I; Protecting the Vulnerable and promoting Growth. A study by Unicef. Oxford: Clarendon press.

Cornia, G. van der Hoeven R. and Mkandawire, T. (1992), Africa's Recovery in the 1990s:from stagnation and adjustment to human development. St. Mary's Press, New York.

Davies, Rob and David Sanders (1993), "Economic Strategies, Adjustment and Health Policy: Issues in Sub-Saharan Africa for the 1990s" Transformation 21 pp.78-93.

ECA (2007), The Millennium Development Goals in Africa: Progress and Challenges. Addis Ababa

Filmer, D. and L.Pritchett (1997), "Child Mortality and Public spending on health: how much Does Money matter?" World Bank Policy Research Working Paper No.864, Washington: The World Bank.

Filmer, D. Jeffrey Hammer and L.Pritchett (1998), "Health Policy in poor countries: weak links in the chain", World Bank Policy Research Working Paper No. 1874. Washington: The World Bank.

Ghosh Jayati (2007), Macroeconomic and Growth policies, United Nations, Department for Economic and Social Affairs (UNDESA), New York.

Hobcraft, J.,McDonald, J. and Rutsein, S. (1984), "Socio-economic factors in infant and child mortality: a cross-national comparison", Population Studies, 38, 193-223.

Hicks, N. and Kubisch, A. (1984), "Cutting government expenditures in LDCs" Finance and Development, 21:37-39.

Hsiao William (2000), What Should Macroeconomists Know About Health care policy? A Primer. IMF Working Paper.

Inter-American Development Bank (1985), Economic and social progress in Latin America: external debt-crisis and adjustment. Washington, D.C.

Jolly, R. (1985), Adjustment with a human face. New York, UNICEF.

_____(1988), "A UNICEF Perspective on the effects of economic crisis and what can be done. In: Bell, D.E. and Reich, M.R., ed. Health, nutrition and economic crisis:approaches to policy in the third World. Dover, MA, Auburn house publishing Company.

_____and Cornia, G.A. (1984), The mpact of World recession on children: a study prepared for UNICEF. Oxford: Pergamon Press

Khan, Mohsin S. Peter J. Montiel and Nadeem U. Haque (1991), Macroeconomic Models For Adjustment in Developing Countries, Washington, D.C.: International Monetary Fund.

Matshalaga Neddy, (2000), Macroeconomic policies and their impact on health in Zimbabwe in the 1980s and 1990s: an analysis of the prevalence of diarrhoea, malnutrition, maternal mortality and access to health services. Retrieved on 3/30/2009 from http://www.informaworld.com.

Mazur, R and D. Sanders (1988), "Socioeconomic factors associated with child health and nutrition in peri-urban Zimbabwe" Journal of Ecology of food and Nutrition, 22.

Mutangadura, Gladys, Adrian Gauci, Bartholomew Armah, Elizabeth Woldermariam, Daniel Ayalew and Binian Egu (2008) " Health inequities in selected African countries: Review of evidence and Policy Implications"

Oduwo RN, Abdullah M, Opondo FA, Kombe Y, Okello W, and Ondolo H. (2000), Macroeconomic Adjustment policies and their effect on health in Kenya. A service of the U.S National Institutes of Health.

Or, Z. (2000a), "Exploring the effects of health care on mortality across OECD countries", Labor Market and Social policy Occasional Papers No. 46, Paris, OECD.

Or, Z. (2000b), "Determinants o health outcomes in industrialized Countries: A pooled Cross country, Time series Analysis," OECD Economic Studies No.30. 2000/1, Paris, OECD.

Pongou Roland, Joshua A. Salomon and Majid Ezzati (2006), "Health Impacts of Macroeconomic Crisis and policies: determinants of Variation in Childhood Malnutrition trends in Cameroon", International Journal of Epidemiology; 35:648-656.

Ruhm, Christopher J. (2006), "Macroeconomic Conditions, Health and Governme nt Policy" National Poverty Center Working Paper Series, Number 06-26.

UNICEF (1984), The Impact of world recession on children on children: a UNICEF special study. Oxford: Oxford University Press.

Wangstaff, Adam (2002), "Inequalities in health in developing Countries," World Bank Policy research Working Paper 2795.

WHO (1993), Macroeconomic Environment and Health: With case Studies for countries in greatest need. Geneva: World Health Organization

World Bank (1990), World Development Report. Oxford University Press.

World Food Council (1985), Improving Access to food by the undernourished. Report by the Executive Director to the Eleventh Ministerial session. Paris (document WPC/1985/4).