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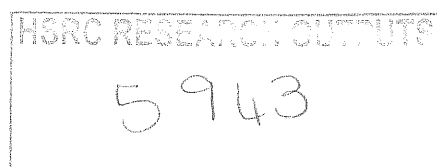
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Child and mother indicators of progress towards the MDG; a four country comparison

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Despite uneven progress in Africa there is evidence of some progress towards the key Millennium Development Goals in particular in relation to indicators of child and mother survival. There is evidence of greater resources being allocated to meet the three vital MDGs: Goal 4 (Reduce child mortality), Goal 5 (Improve maternal health) and Goal 7, Ensure environmental sustainability. Despite this, the relationship between the provision of health services as a service delivery priority (the health sector input) may link to improved indicators of outputs (such as births attended by skilled health staff) but not necessarily to outcomes (such as the vitally important infant mortality rate and maternal mortality ratio). Somewhat surprisingly the countries which have been able to allocate greater resources to meeting these outputs see a significant divergence between output and outcomes. Since the rational allocation of resources by policy makers depends on some notion of efficiency (the ratio of outputs to inputs) and effectiveness (the final improved outcome) this divergence demands explanation. The key indicators of child and mother survival are examined in four African countries: Botswana, Malawi, Tanzania and South Africa and analysis undertaken of the perverse trends in resource allocation and improved lives for their children and mothers. In some countries the HIV-AIDS pandemic appears to be erasing progress in child and maternal survival, in others not.

What prospects are there for progress in health and social indicators in the current economic downturn? The paper examines some policy options in a period of declining resources.



Background to the study

The key to improving the lives of poor people throughout Southern Africa is commonly agreed to be through the effective delivery of good quality basic services which will lead to health, longevity and wellbeing (Hemson, Karuri-Sebina and Munthre, 2008). However it is unclear whether the live-giving services which could make the difference in people's lives and help reduce poverty reaching those intended or having the anticipated impact.

This paper has arisen from a project to analysis of service delivery within the regional and national frameworks in Botswana, Tanzania, Malawi and South Africa and assess progress towards regional planning frameworks and the Millennium Development Goals (MDG).¹ The objectives of this project to analyse the socio-political dynamics for delivery, political debates about delivery, the effect of regional plans, and the extent to which public participation deepens democracy and accountability. In the third Study of the Project, the

Introduction

The key indicators of child and mother survival are examined in four African countries: Botswana, Malawi, Tanzania and South Africa in this paper. The positive and the perverse trends of and analysis undertaken of the perverse trends in resource allocation and improved lives for their children and mothers.

According to the World Health Organization (WHO) health can be defined as a "complete state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (Official Records of the World Health Organization, no. 2, p. 100). This definition of health suggests sectors other than the health sector can be critically important in leading to sustained human development. Although the health sector targets improved health for national populations, the impact of its services (apart from the impact of a well-targeted interventions such as polio) is often difficult to track.

In this paper the data on the delivery of key services targeting improved child and maternal health is presented in the four countries mentioned. These indicators are gathered under appropriate MDG headings, progress analysed by country and across countries. The indicators utilized are identified as either output or impact indicators. Their definitions are derived from comparable studies but modified to the specific context of the study:

The *output indicators* are quantitative or qualitative measures of government activities, work products, or actions. In the context of this paper, outputs are those services which the government has direct control.²

¹ The Project Measuring Service Delivery in Southern Africa is being undertaken by the Centre for Service Delivery of the HSRC and is funded by the Southern African Trust whose support is acknowledged.

² www.inece.org/indicators/.../glossary2.php?cat...Output/indicator

The *impact indicators* are those linked to the objectives of a programme which are to be achieved over a period of time, usually described as a “medium-long” period.³

The language of “output” and “impact” could be presumed to imply an input-output model of relationships between resources and human impact; this is not the intention of the researchers who find that the relationships of causality in health impact are complex and involve wide-ranging issues such as environment, economy, demography, and associated services. According to Mindell, Ison and Joffe (2009), for example, “health and its determinants are strongly influenced by the policies outside the health care sector, for example, transport, regeneration projects and housing”. Indeed health impact assessment involve a major study of these “external” factors. Since the impacts of specific health policies are extremely difficult to establish because there are many other factors at work in the health sector the language of output and impact is solely descriptive.

The method undertaken here is to outline trends and patterns in service delivery intended to improve the health and wellbeing of child and mother and to assess the potential impact.

Basic concepts:

Health impact

From experience of a number of international health campaigns (for example, such as for the elimination of measles and polio) it is evident that certain interventions can have an impact on specific targeted groups. These interventions can take place both within and outside the health sector for an impact to occur. The term impact, in the health fields refers to the immediate effect of a health program, process, or policy, while the term outcome refers to the distant or ultimate effect (University of Canada, 2009).

As mentioned policies or programs that are health related and non health related may directly affect the health of a population or may indirectly affect their health by affecting the determinants of health and consequently will affect quality of life of the population. For example improvements in life expectancy of a population are regarded as the result of the complex relationship of advances in income, health, nutrition, education, sanitation, and medicine, with the mix varying over age, period, cohort, place, and disease. From the assessment of data over the past millennium (Oeppen and Vaupel, 2002) argue that reductions in mortality should not be seen as a disconnected sequence of unrepeatable revolutions but rather as a regular stream of continuing progress. The considerable increase in longevity, one of the firmest indicators of human development, in advanced is now being replicated in rapidly developing countries e.g. India and China. Africa,

³ See Mother and Child Nutrition, <http://motherchildnutrition.org/information-management/planning-monitoring-evaluation/indicators.html>

however, is something of an exception to this development and this paper attempts to look for trends and indicators associated between service delivery and health impact in the African continent particularly in Southern African countries. These indicators focused on child and maternal health would provide some view on whether a similar development could be possible.

Health inequality

The impact of health inequality is mediated by inequality of services. Although broad indicators relate access to health care services the quality of health is also mediated by health determinants which accentuate health inequalities (Tugwell, Robinson, Morris, 2009:1). Health determinants include the social and physical environment, individual behaviours, genetics, and the health care system. Inequalities in social and economic conditions can have critically important effects on people's lives that determine their risk of illness and the actions taken to prevent or treat illness when it occurs. Such inequalities are not inevitable or fixed but the direction appears to be widening between rich and poor.

There are two further issues related to health inequalities which relate to health impact. Firstly there are the inequalities in the services themselves between urban and rural areas and public and private in health services. More services for rural communities such as clinics do not necessarily have the impact anticipated despite the desire for modern medical services in these communities. In an important study of the experience in a Mexican village Stebbins (1982) argues that the drive for these services is often undertaken for political reasons rather than an immediate concern with health levels of citizens. The quality of health services in rural communities is often considerably lower than those in the urban areas and the focus on health services alone *can draw attention away* from the redistribution of "health-sustaining resources" such as access to safe drinking water, better housing and improved sanitation.

These elements constitute policies and programs implemented outside the healthcare sector. The inequalities in access to water, quality education, sufficient agricultural land, and finance tend to be reproduced by the class-based nature of dependent capitalist economies have prevented the lower classes from enjoying a representative share of health-related resources (1982: 22). The perspectives of political economy are needed to explain the forces which impact on the lives of impoverished people.

Secondly there is something of a perverse relationship between income and access even to public services. Victora et al (2000) advance the "inverse equity hypothesis" to explain how such health inequities change in relation coverage, morbidity, and mortality indicators. It appears public health services are most accessed by those with higher incomes who achieve the most benefit and then only later do poor gain greater access and benefit from interventions.

In introducing the broad context of the four countries, the Human Development Index is presented to show each country's pace of progress.

Human development index

The Human Development Index (HDI) is the most general accepted index of social progress and measures three domains: life expectancy, knowledge of education and standard of living (Human Development Reports, 2009). Here it is used to rank countries by their level of "human development" which usually also implies whether a country is a developed, developing, or underdeveloped country.

Table 1. Human Development Index

Country	HDI Rank	HDI Value 2000	HDI Value 2006	Change, 2000/06
South Africa	121	0.71	0.67	-0.04
Botswana	126	0.63	0.65	0.02
Tanzania	152	0.43	0.50	0.07
Malawi	162	0.43	0.48	0.05

Source: Human Development Reports, 2009

The table above shows the HDI ranks and HDI values for South Africa, Botswana, Tanzania and Malawi. A higher HDI rank is associated with a lower HDI values; the more developed South Africa for example has a HDI ranking of 121 with a HDI value of 0.67. The countries are ranked with South Africa having the higher HDI and Malawi the lowest. South Africa and Botswana are associated in both having higher HDI while Tanzania and Malawi are associated in having lower HDI.

Compared to 2000 data Malawi, Tanzania and Botswana have made progress in increasing their HDI value. However South Africa's HDI value has declined since 2000 by 0.04. Tanzania and Malawi Tanzania has made improvement in increasing their HDI but their HDI ranking still remains within 150-165.

MDG: Aggregating indicators, tables of key indicators

The Millennium Development Goals (MDGs) will be examined to access the prospects of their achievements and their explanatory power in relating services to social impact.

In September 2000, during the United Nations (U.N.) Millennium Summit, the international community adopted the Millennium Declaration and the MDGs (Millennium Development Goals) as strategic indicators by which poor countries and the donor community could measure progress toward reducing poverty and improving key

dimensions of development (Agénora et al., 2005). The MDGs commit each country and the “international community” to an expanded vision of development, which strongly promotes human development as the key to sustaining social and economic progress in all countries. In comparison to previous targets such as those of the Development Decade these goals are modest as they do not set the target of elimination of deprivation but of their reduction (Hemson, 2008) but despite this caution they have been widely accepted as a framework for measuring development progress (World Bank, 2009).

The Millennium Declaration set 2015 as the target date for achieving its goals. Although this has not been rigorously assessed, across all countries there appear to have been greater resources allocated and policies implemented to meet these goals. There are eight millennium development goals of which four, five and seven will be examined.

Table 2. Millennium Development Goals

Goal 4 Reduce Child Mortality	Reduce by two thirds, between 1990 and 2015, the under-five mortality rate
Goal 5 Improve maternal health	Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
Goal 7 Ensure environmental sustainability	Halve, by 2015, the proportion of people without sustainable access to basic sanitation and water

The Goals set targets around indicators in particular indicators of child and mother survival, which are Goal 4 (Reduce child mortality), Goal 5 (Improve maternal health) and Goal 7 (Ensure environmental sustainability).

Method and limitations

The data is accessed from the World Development Indicators website (www.worldbank.org/data/) and presented in relation to MDG's 4, 5 and 7 with a particular focus on the trends and patterns of service delivery indicators. The World Development Indicators provide graphs rather than numerical data; the trends are identified and contrasted across countries and reviewed in relation to the planned progress.

The information is presented in a graphical form which provides some limitation in having the presentation of exact measures. The method is exploratory of this data rather than conducting precise measurement of trends and manipulation of data to examine potential causalities. The key question is not to assess causality itself but to indicate what trends are visible and to explore the broad relationships between impact and output indicators. These results are then contrasted and discussed.

Finally the data is assessed in terms of the targets of the MDG, the progress is evaluated, and judgment made of the rate of progress in relation to the intended goal.

To ensure clarity in relation to the trends and patterns of key indicators, the definitions are presented below.

Goal 4:

Output Indicator:

Proportion of children immunized against measles: The proportion of 1-year-old children immunized against measles is the percentage of children under one year of age who have received at least one dose of measles vaccine (United Nation, 2003: 42).

Impact Indicator:

Infant mortality rate: is typically defined as the number of infants dying before reaching the age of one year per 1,000 live births in a given year (United Nation, 2003:40).

Impact Indicator:

The under-five mortality rate: is the probability (expressed as a rate per 1,000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates (United Nations, 2003:38).

Goal 5

Impact Indicator:

Proportion of births attended by skilled health personnel: The proportion of births attended by skilled health personnel is the percentage of deliveries attended by personnel trained to give the necessary supervision, care and advice to women during pregnancy, labour and the post partum period; to conduct deliveries on their own; and to care for newborns (United Nations, 2003:46).

Output Indicator:

Adolescent birth rate: Number of births per 1000 women age 15-19 (Nationmaster, 2009)

Output indicator:

Contraceptive Prevalence: Condom use rate of the contraceptive prevalence rate is the number of women aged 15–49 years in marital or consensual unions who are practicing contraception by using condoms as a proportion of all of women of the same age group in consensual unions who are practicing, or whose sexual partners are practicing, any form of contraception (United Nations, 2003:50)

Impact Indicator:

Maternal mortality ratio: The maternal mortality ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births. The 10th revision of the International Classification of Diseases makes provision for including late maternal deaths occurring between six weeks and one year after childbirth (United Nations, 2003:44)

Goal 7

Impact Indicator:

Infant mortality rate: As mentioned above

Outcome Indicator:

Proportion of population with sustainable access to an improved water source, urban and rural: The proportion of the population with sustainable access to an improved water source, urban and rural, is the percentage of the population who use any of the following types of water supply for drinking: piped water, public tap, borehole or pump, protected well, protected spring or rainwater. Improved water sources do not include vendor-provided water, bottled water, tanker trucks or unprotected wells and springs (United Nation, 2003:72)

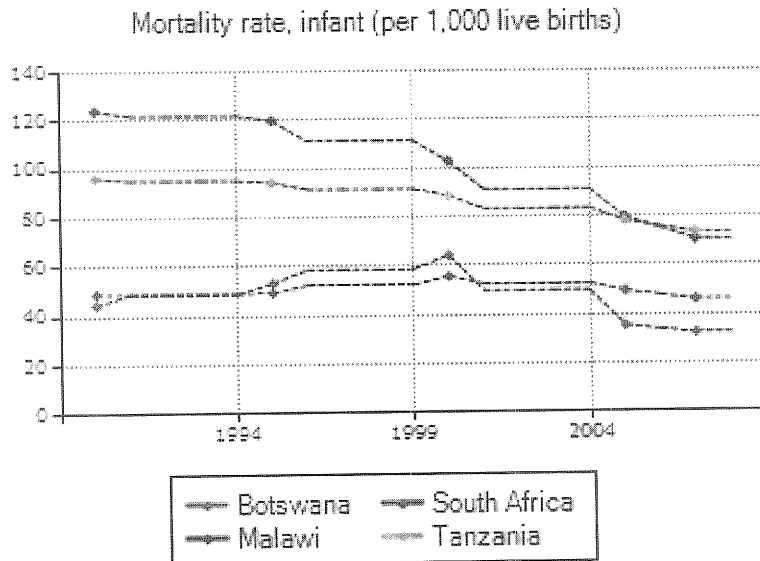
Outcome Indicator: Proportion of population with access to improved sanitation, urban and rural: Proportion of the urban and rural population with access to improved sanitation refers to the percentage of the population with access to facilities that hygienically separate human excreta from human, animal and insect contact. Facilities such as sewers or septic tanks, pour-flush latrines and simple pit or ventilated improved pit latrines are assumed to be adequate, provided that they are not public, according to the World Health Organization and United Nations Children's Fund's Global Water Supply and Sanitation Assessment 2000 Report. To be effective, facilities must be correctly constructed and properly maintained. (United Nations, 2003:74)

Reviewing progress on MDG goals 4, 5 and 7

Goal 4: Reduce Child Mortality

Three indicators are captured on the website to indicate progress of child mortality.. These are immunization rate, infant mortality rate and under-five mortality rate.

Figure 1. Reducing child mortality (MDG4): Indicator 2

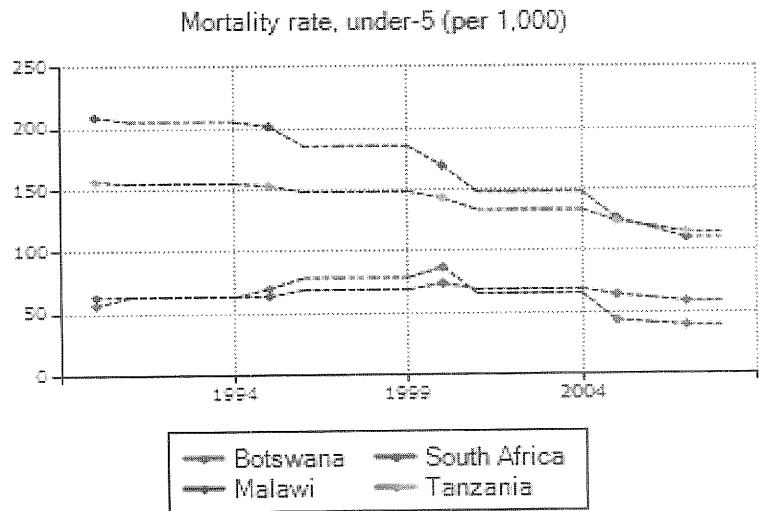


Source : World Development Indicators

The figure above shows there has been progress in reducing infant mortality for all countries. Pre 1994 the range is much wider however post 1999 the range begins to move closer. There is a pattern of association between Malawi and Botswana, both of which have higher levels of infant mortality.

This twinning, which appears in Malawi, is also apparent for Botswana and South Africa, which are in the same range of 40-60, and this tends to decline marginally over the last decade. The infant mortality rate for Malawi has moved from the region of 120 to below 80 in the period 1994 to 2005. This shows the greatest change.

Figure 2. Reducing child mortality (MDG4): Indicator 3

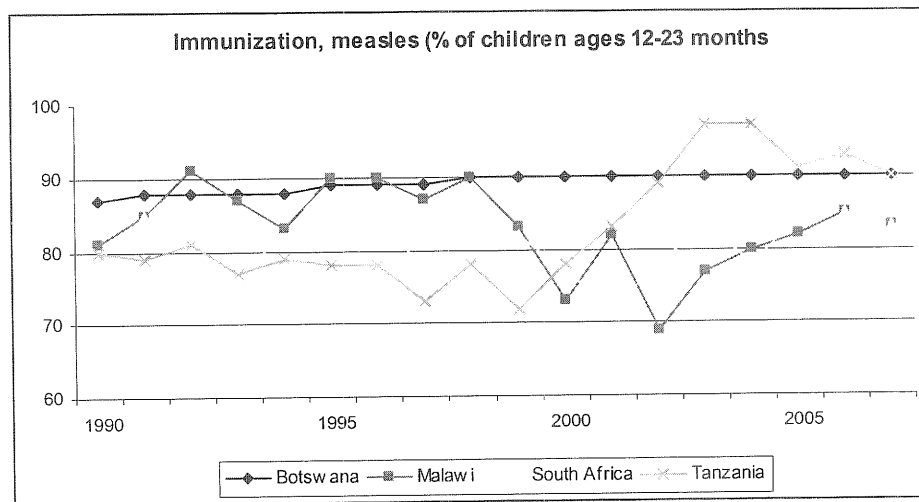


Source : World Development Indicators

The under-five mortality rate has declined for all four countries. The range between all countries is much wider initially however it is compressed after 1999. There is a pattern of association between Malawi and Tanzania in that they both have higher levels of under-5 mortality rate. Pre 1994 Malawi's under-five mortality rate is above 200. At the end of 2004, the under-five mortality rate of Malawi decreases to 150. Tanzania has moved from the region of 200 to close to 100 post 2004.

Botswana and South Africa show an association between their under-five mortality rates however post 2004 Botswana's under-five mortality rate is below 50 whereas South Africa's it continues to be above 50. The infant mortality rate and under five mortality rate would appear the most sensitive to improved interventions.

Figure 3. Reducing child mortality (MDG4): Indicator 1



Source: (World Development Indicators, 2009)

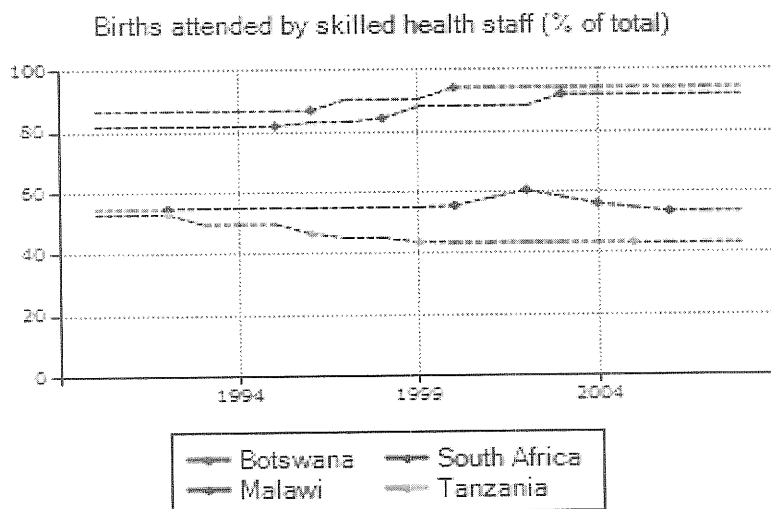
Routine measles immunization serves as a proxy indicator for access to basic health services among children under five (United Nations, 2007). The figure above shows the range has widened and finally narrowed over time. Before 1994 Tanzania had the lowest immunization rate followed by South Africa. However post 2004, compared to other three countries, Tanzania has the highest immunization rate i.e. above 90 percent. Malawi has moved from an estimated 90 percent pre 1995 to below 90 percent in 2005. South Africa's immunization rate in 1995 was below 80 percent. Post 2005 it has moved above 80 percent. Botswana's immunization rate appears to be constant.

Goal 5: Improve maternal health

There are five indicators used by the world development indicators to track the progress of improving maternal health. These indicators are namely, the number of births attended by skilled health, maternal mortality ratio, the number of pregnant women receiving prenatal care, adolescent pregnant and contraceptive prevalence. The vast majority of maternal deaths and disabilities could be prevented through the appropriate reproductive health services before, during and after pregnancy, and through life-saving interventions should complications arise (WDI, 2008). Having skilled health personnel present at deliver (doctors, nurses, midwives) who are trained to detect problems early can effectively provide or refer women to emergency obstetric care. The regions with the lowest proportions of skilled health attendants at birth are Southern Asia and sub-Saharan Africa, which also have the highest numbers of maternal deaths (United Nations, 2007). Adolescent pregnancy is common in developing countries and entails a higher risk of maternal and newborn death (up to five times for maternal mortality than for women older than 19 years). The main problems are pre-term delivery and low birth weight. Much can be done to mitigate these with appropriate community and health facility action. Current practice is designed for women older than 19 years, and does not meet the special needs of pregnant adolescents. Infants born to adolescent mothers are more likely

to be delivered prematurely and at low birth weight and are more likely to die in the first month of life. More than one million infants die each year in the developing world because young girls are marrying and having children before they are physically ready for parenthood (WHO, 2009).

Figure 4. Improving maternal health (MDG4): Indicator 1

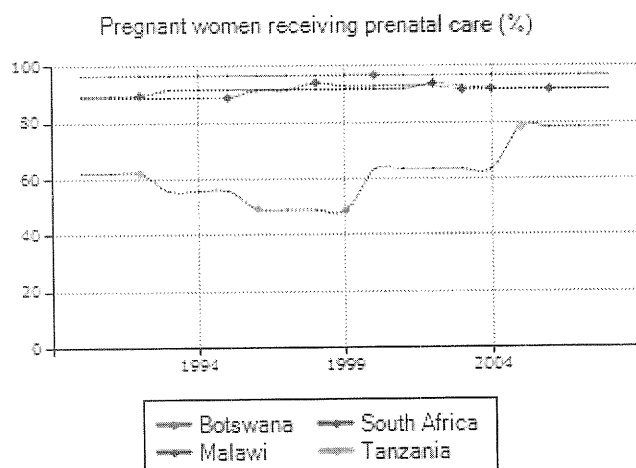


Source : World Development Indicators

There is a pattern of association between Malawi and Tanzania in that they both observe low numbers of births attended by skilled health. Post 2000 Malawi has had a decline in the number of births attended by skilled health. Tanzania has seen a decrease in the number of births attended by skilled health i.e. moving from an estimated 50 percent to nearly 40 percent post 2004.

South Africa and Botswana observe a pattern of association in that both countries have higher number of births attended by skilled health across the period.

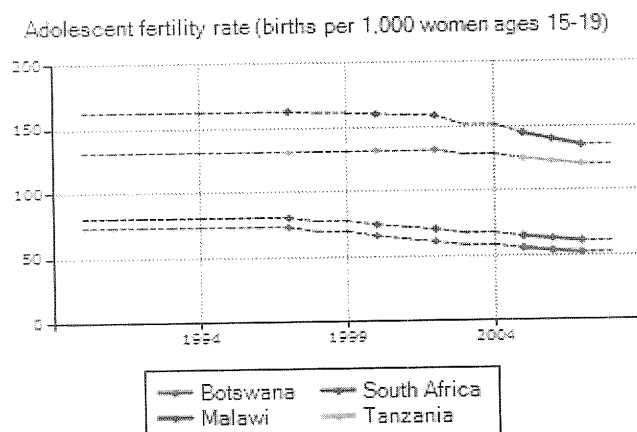
Figure 5. Improving maternal health (MDG4): Indicator 3



Source : World Development Indicators

The figure above shows that there is wide range in the beginning however at the end of the period the range begins to narrow. Pre 1994 the percentage of women receiving prenatal care in Tanzania was at an estimated 60 percent however post 2004 there were approximately 80 percent of pregnant women receiving prenatal care. The number of women receiving prenatal care in South Africa, Botswana and Malawi remains between 80 to 100 percent across the period 1994-2005.

Figure 6. Improving maternal health (MDG4): Indicator 4

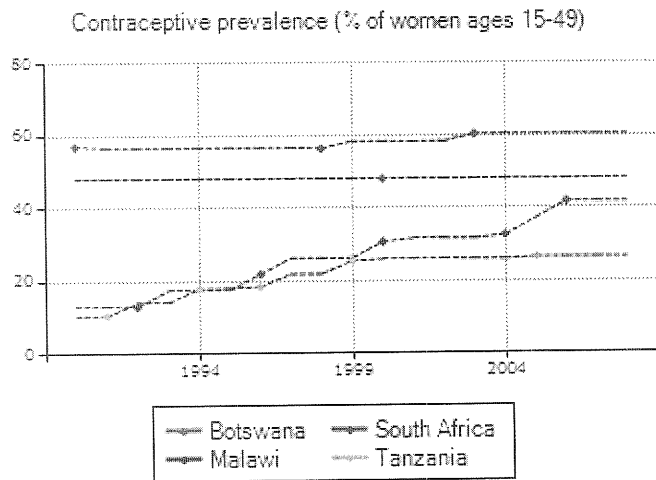


Source : World Development Indicators

In the figure above there is a difference in clustering in which all countries start and end at a higher level. The observed trend in the figure above shows that post 2004 all four countries has seen a decline in their adolescent fertility rate. Malawi has had the greatest improvement in reducing their adolescent fertility rate i.e. moving from an estimated 160

to 140 within the period 1994 and 2005. Botswana and South Africa have a similar observed trend for adolescent rate.

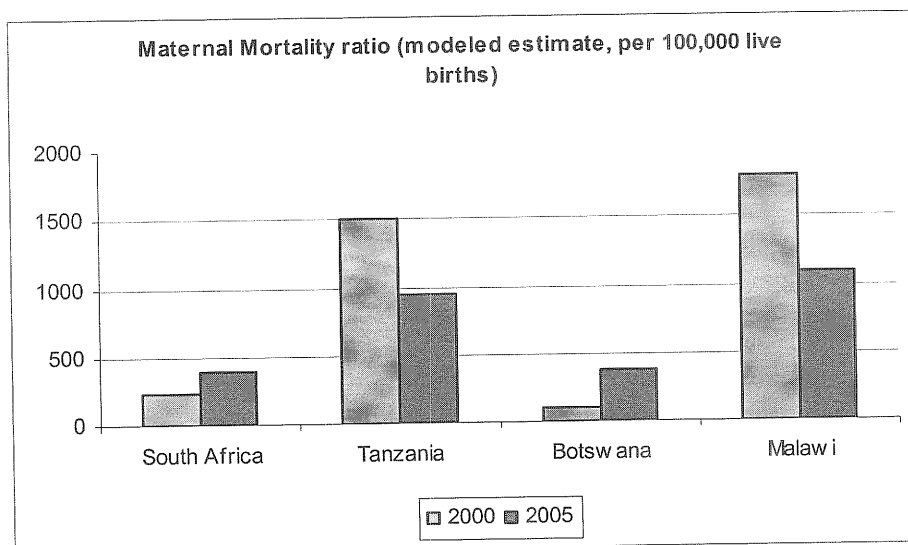
Figure 7. Improving maternal health (MDG4): Indicator 5



Source : World Development Indicators

Figure 7 shows the range for the four countries has narrowed towards the end of the period. There are two sets of twinning i.e. Pre 1994 Malawi contraceptive prevalence rate was at an estimated 10 percent however post 2004 this figure has moved to an estimated 40 percent. Tanzania also shows an increase rate of contraceptive prevalence with the period 1994 and post 2004. South Africa's contraceptive prevalence rate has moved from below 60 percent in 1994 to 60 percent post 2004. In Botswana there has only been one data entry available.

Figure 8. Improving maternal health (MDG4): Indicator 2

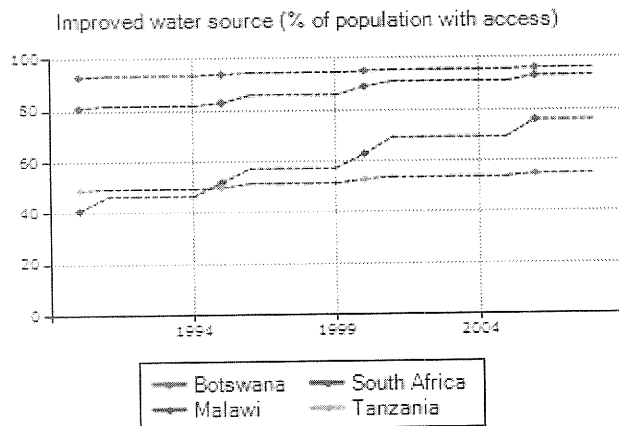


Source: (World Development Indicators, 2009)

The figure above shows that between the period 2000 and 2005 Tanzania and Malawi has seen a decline in their maternal mortality ratio. Tanzania has moved from an estimated 1500 deaths per 100 000 in 2000 to below 1000 in 2005. Malawi maternal mortality ratio has moved from above 1500 to below 1500 in 2005. There has been an increase in the maternal mortality rate for South Africa and Botswana.

Goal 7: Ensure environmental sustainability

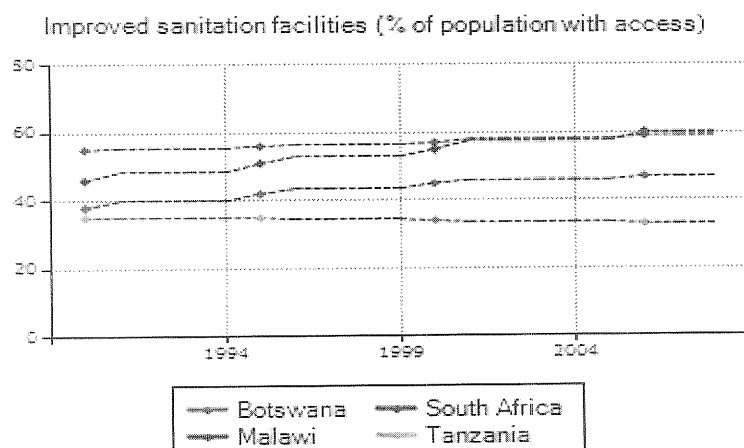
Figure 9. Ensuring Environmental sustainability (MDG4): Indicator 1



Source : World Development Indicators

Figure 9 shows that there has been an increase in the number of people accessing water for all four countries. Over time it is evident that the range has narrowed. Malawi has made the most improvement since 1994 by increasing the number of people accessing water from 40 percent to an estimated 80 percent. Post 1994 the percentage of people accessing water through an improved water source in Tanzania was at an estimated 45 percent however post 2004 this figure increase to an estimated 48 percent. Across the period Botswana and South Africa observe a similar trend in the percentage of people accessing water i.e. between 80-100 percent.

Figure 10. Ensuring Environmental sustainability (MDG4): Indicator 2



Source : World Development Indicators

The trend in the graph above shows the percentage of people accessing improved sanitation facilities. The observed trend pattern for all countries appears to be constant. South Africa and Malawi show similar pattern of improvement i.e. moving from below 60 percent to 60 percent post 2004. Botswana has also seen an increase trend in the number of people having an improved sanitation facility available. Tanzania shows a decline in the number of people having an improved sanitation facility available.

Results and Discussion

This section of the paper focuses on evaluating each country's progress in meeting their MDG targets for goals 4 and 7.

Table 3. Reduce Under five mortality rate by two-thirds

Country	1990	2006	Target: 2015	Deficit
Malawi	200	110	67	33
Tanzania	160	120	53	67
Botswana	60	40	20	20
South Africa	70	60	23	37

NB: Figures are approximately based on data from graph

Source: (World Development Indicators, 2009)

The table above attempts to track each countries progress towards reducing the under-five mortality rate by two thirds.

Between the period 1990 Malawi has seen the greatest improvement in reducing their under-five mortality rate by 45 percent. There is a deficit of 33 for Malawi to meet their

goal in the next six years. Therefore it is unlikely that Malawi will be able to reach their target of 67 by 2015.

Between the period 1990 and 2006 Tanzania has been able to reduce their under-five mortality rate by 25%. There is a deficit of 67 for Tanzania to meet their target of 53 by the year 2015. Considering the rate of progress from 1990 it appears unlikely that Tanzania will meet their goal of 53 by 2015.

Between the period 1990 and 2006 Botswana has only been able to reduce their under-five mortality rate by 33%. There is a deficit of 20. Similarly it is not likely that Botswana will meet their goal of 20 by the year 2015.

South Africa has a target of 23 by 2015 however they have only been able to reduce their under-five mortality rate by 4 percent from 1990 to 2006. Considering the rate of progress South Africa will be unable to meet their target by 2015.

Table 4. Halve, by 2015, the proportion of people without sustainable access to basic sanitation

Country	1990	2006	Target: 2015	Deficit
Malawi	55	40	27.5	12.5
Tanzania	62	65	31	34
Botswana	62	55	31	24
South Africa	43	40	21.5	18.5

NB: Figures are approximately based on data from graph

Source: (World Development Indicators, 2009)

The table above attempts to track each countries progress towards reducing the number of people without sustainable access to safe drinking water and basic sanitation.

From 1990 to 2006 Malawi has been able to reduce the number of people without basic sanitation by 27 percent. In order to meet their target of 27.5 percent in 2015 Malawi has to decrease the number of people without basic sanitation by 12.5 percent in the next six years.

Tanzania has been able to reduce the number of people without basic sanitation by 5 percent from 1990 to 2006. In order to meet their target by 2015 there should be a 24 percent decrease in the number of people without basic sanitation in the next six years. Considering Tanzania's rate of progress over the years in meeting MDG target it is unlikely that the goal will be met.

From 1990 to 2006 South Africa has reduced the number of people without basic sanitation by 8 percent from 1990 to 2006. In order to meet their target of 21.5 percent,

South Africa would have to reduce the number of people without basic sanitation by 18.5 percent in the next six years.

Conclusions

In most of the output indicators progress in the most recent years appears slower than in the previous period. This indicates that progress towards the Millennium Development Goals was slipping before the current economic recession which will impact severely on recourses. These results have shown that there has been progress in countries attempting to meet their MDGs. However it is evident that all four countries will not be able to meet their MDG targets of reducing child mortality and halving the proportion of people without basic sanitation by 2015. In relation to maternal health in two countries (South Africa and Botswana) the trends were actually adverse. In the other two countries progress (Tanzania and Malawi) was made but the target of reducing maternal mortality by 75 percent does not appear possible.

The findings presented in this paper show that there are generally indicators used to evaluate the quality of health of mother and child in a country. Countries with higher levels of development do not necessarily have improved their quality of health for mother and child. For example Botswana and South Africa have a higher HDI than Tanzania and Malawi however Botswana and South Africa have higher maternal deaths. It is also evident that Tanzania has the highest immunization rates compared to other countries but their infant mortality rate and under five mortality rates continues to increase. These results suggest that there appears to be some relations generally between outputs and impact the difficult in to account for perverse trends. Unfortunately it is clear that MDGs will not be met and this has been evident during the recent past.

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