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Tanzania Health Sector Reform with Reference to Morbidity and Mortality: Something to Celebrate in Dodoma and Morogoro Regions?

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Abstract: The study was carried out to investigate the contribution of health sector reform on morbidity and mortality in Bahi Rural District and Morogoro Municipality. Specific objectives of the study were to assess the extent to which health sector reform had an effect on morbidity and to examine the effect of health sector reform on infant and maternal mortality. Data collections included 256 households and 64 health services providers using structured questionnaire. Data were analyzed using qualitative methods, such as; frequencies, cross-tabulation and means. Major results in both Bahi Rural District and Morogoro Municipal indicate that morbidity decreased with time. Sources of safe and clean water had been improved. Most of the households had pit-latrines. Together with maternal and infant mortality has been reduced. In conclusion, assessment made on morbidity as related to health sector reform indicates that the number of patients in both Bahi Rural District and Morogoro Municipality have tended to decrease with time and would probably mean that reform had a positive change on health service delivery. Assessments on maternal and infant mortality rates have shown that there had been a tendency of reduction in both Bahi Rural District and Morogoro Municipal. Construction of new health facilities in close proximity to the community and provision of drugs and equipment, especially in the rural areas is also recommended as it will help in improving accessibility to quality health services. In doing so, it will also reduce mortality and the number of patients served per medical officer in some of the health facilities.

Key words: Health sector, regions, morbidity, mortality, patients, Morogoro

INTRODUCTION

Background to the study: Health plays a major role in facilitating development. It is the foundation without which other activities will not be executed fully. Good health, both at the individual, community and national levels, is a pre-requisite for full-scale productivity and creativity. A sick or malnourished individual or community will not be able to achieve their productivity potential even if all the other resources are available. Thus for a nation to develop, it must seek high standards of health and health service delivery systems so as to enable its manpower resources to produce. Health forms the core of all other development activities. Health sector reform is intended to improve the health of populations by promoting and enhancing access, equity, quality, sustainability and efficiency in the delivery of health care services to the largest possible number of people. Health Sector Reforms are underway in many countries with the primary goal of improving health care delivery through decentralization of power from the central levels to the local governments, introduction of cost sharing and privatization. While the health sector reform is still ongoing in several countries, there has been an International agenda to improve key indicators of reproductive health, decline in maternal mortality, safe child birth and ability of women to make reproductive health decisions for them. The health sector reform process and the international agenda on reproductive health both seek to ensure quality in the delivery of health care and services. However, concerns have been raised about whether the reform process will ensure that women's reproductive health needs are addressed as advocated in international agendas as in the International Conference on Population and Development (ICPD) mandate (Makundi *et al*., 2005).

The main objective of Health Sector Reforms in Tanzania is to improve the health and well being of Tanzanians especially the needy and poor and to make health services accessible, sustainable, effective and efficient. Hence, health sector has undergone extensive reforms by providing quality and affordable basic health services which are gender sensitive and sustainable (URT, 2003).

Health sector is one of the priority sectors of the Tanzania Government as is reflected in the total government expenditure allocation to the sector. The total government budget share for this sector has

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progressively improved from 12.3% in 2006/7 to 16.1 in 2007/8 (URT, 2008). Whereas the total health sector budget proposed for 2009/10 amounts to 479 billion shillings greater than the last financial year 2008/9 which stood at 463 billion shillings. To ensure that health services are at the required standard, the Ministry of Health provided new lessen to 20500 and renewed ones 1500.

Some positive gains which have been achieved as a result of on-going reforms, includes; decentralization of health services delivery to 113 local authorities and about 5433 health facilities of which 3549; 948 and 936 are government, voluntary and private owned, respectively (URT, 2008). Training institutions increased to 106 and enrolment in pre-service training increased from 1013 in 2006 to 6458 in 2008.

Despite positive gains realized in recent years, there is a rapid increase of both endemic and epidemic diseases in both urban and rural population. Likewise, the quality of health services delivery does not yet meet the minimal standard of quality services (URT, 2003). Morbidity and mortality in many parts of Tanzania is still high.

MATERIALS AND METHODS

The study was conducted in Bahi Rural District in Dodoma region and Morogoro Municipal in Morogoro region. Dodoma region is located in the central plateau of Tanzania extending between latitude 4° and 7°30' South and between longitude 35°0 and 37° East. Dodoma covers an area of about 41372 km^2 which is 5% of the total land area of Tanzania mainland. The region lies at about 1040 m above sea level.

Morogoro Municipality is located in Morogoro district which is one of the districts in Morogoro region. The region is located on the Eastern side of Tanzania mainland and it lies between latitudes 5°58' and 10°00' South of the equator and between longitudes 35°25' and 38°30' East of Greenwich. Morogoro region has a total area of 73,039 km^2 out of which 2,240 km^2 is covered by water. This area makes it the second largest region in Tanzania. The region covers about 7.7% of the total area of Tanzania (URT, 2008).

Morogoro and St, GEMA a Catholic health centre in Dodoma, ward and village/mtaa executive officers. Secondary data was obtained from documents and records in Dodoma primary data related to health services users, providers, facilities and other related information was collected through in-depth interview using a structure questionnaire. Additional data was obtained from informal discussions held with officers at the Ministry of Regional Administration and Local Government, Health officers at the Ministry of Health Tanzania, director of National Institute for Medical Research (NIMRI) Tanzania, regional and districts health officers, regional and districts health secretaries. Also, discussion was held with officers from private and religious institutions involved in health services delivery these included Diocese of Central Tanganyika (DCT) in Dodoma, The Aga Khan Health Centre in Dodoma, The Aga Khan Health Centre in Morogoro, Ahmadiya Dispensary in Morogoro, St, Mary Clinic Centre and Morogoro regional hospitals and health offices.

A total of 256 household respondents were selected and each study area had 128 household heads. Whereas a total of 64 health service providers were selected and thus each study area having 32 respondents. A multi-stage sampling technique was employed in selecting respondents. In the first stage two divisions from each study district were selected using purposively sampling. In the second stage for each selected division two wards were selected using simple random sampling method. Then from each ward two villages/mtaa were selected using simple random sampling method. From each of the selected village/mtaa a list of ten-cell units was prepared to provide a sampling frame. Then 32 ten-cell units (4 from each village/mtaa) were selected using systematic sampling method. Finally, from each ten-cell a list of households was prepared from which 256 households (4 from each ten-cell unit) was selected using systematic sampling method.

On the one hand systematic sampling method was used to select 32 health services providers from each district. Hence, to make a total of 64 health services providers.

Descriptive statistics was used to analyse most of collected data. To compliment the descriptive analysis, some of the information was assessed qualitatively based on sound judgements and health rationale. The Statistical Package for Social Sciences (SPSS- PC) window (Version 11.5) software was used as a tool for data analysis.

RESULTS AND DISCUSSION

Respondents characteristics

Characteristics of sampled households: The characteristics of the respondents which were considered for household heads, include; sex, education level, marital status, marriage type, age and occupation.

Sex: Table 1 presents characteristics of sampled households. Female respondents have been reasonably represented in both Bahi Rural District (48%) and Morogoro Municipality (46%). It is clear from Table 1 that

Table 1: Characteristics of sampled households by district

Variables	Districts: Bahi Rural District (N = 128)	Districts: Morogoro Municipal (N = 128)	Total sample (N = 256)
Respondent's sex (%)			
Male	67 (52.3)	69 (53.9)	136 (53.1)
Female	61 (47.7)	59 (46.1)	120 (46.9)
Education level of head of household (%)			
None	44 (34.4)	15 (11.7)	59 (23.0)
Adult education	4 (3.1)	3 (2.3)	7 (2.7)
Primary level	78 (60.9)	79 (61.7)	157 (61.3)
Ordinary secondary level	2 (1.6)	28 (21.9)	30 (11.7)
Advanced secondary level	0 (0.0)	3 (2.3)	3 (1.2)
Marital status of head of household (%)			
Married	109 (84.8)	100 (78.1)	209 (81.6)
Single	7 (5.6)	18 (14.1)	25 (9.8)
Widowed	7 (5.6)	5 (3.9)	12 (4.7)
Divorced	4 (3.2)	4 (3.1)	8 (3.1)
Separated	1 (0.8)	1 (0.8)	2 (0.8)
Marriage type of head of household (%)			
Monogamist	111 (86.5)	119 (93.1)	230 (89.6)
Polygamist	17 (13.5)	9 (6.9)	26 (10.4)
Distribution of age of head of household (%)			
<50 years	103 (80.5)	97 (75.8)	200 (78.1)
≥50 years	25 (19.5)	31 (24.2)	56 (21.9)
Respondents occupation of head of household (%) Multiple response			
Farming	127 (88.8)	72 (45.3)	199 (65.9)
Civil service	0 (0.0)	26 (16.4)	26 (8.6)
Animal keeping	5 (3.5)	1 (0.6)	6 (2.0)
Petty business	11 (7.7)	60 (37.7)	71 (23.5)

Figures in parentheses are the percentages

both Bahi Rural District and Morogoro Municipality have almost the same representation of both males and females. It can be argued that a reasonable representation of females might have possibly resulted from the approach of the study whereby some of the female respondents represented their husbands at the time of interviewing and hence were not necessarily household heads.

Education levels attained by respondents: Results in Table 1 show that greater proportion of the interviewed respondents in Bahi Rural District (34.4%) did not attain any formal education compared to only 11.7% in Morogoro Municipality. On the other hand, greater proportions of respondents in Morogoro Municipality (21.9%) have attained secondary school education compared to only 1.6% in Bahi Rural District. Education can affect individual's attitude towards different situations and obtaining information (Cham *et al*., 2005). Education can also alter the traditional beliefs on the use of modern health services. Also, education is a tool that can determine how people manage their resources (URT, 2003). The fact that majority of the household heads have attended primary education implies that there is a probability of the sampled household heads to easily understand the essence for having health services. Also, they would be able to follow health service providers prescriptions on the use of drugs and medicine, be able to read and understand leaflets related to health issues and also understand issues concerning the environment and health care.

Marital status and marriage type: Results in Table 1 show that sampled household heads who are married in both Bahi Rural District and Morogoro Municipality are high at 85 and 78%, respectively. Smaller proportions were also recorded for singles, widowed, divorced and separated individuals. Together with results in Table 1 indicate that the proportion of sampled household heads whose marriage type is monogamous was high in both Bahi Rural District (87%) and Morogoro Municipality (93%). The implication of the results is that respondents are likely to pull their resources together and this might enable the family to access quality health services more than polygamous families where resources are to be distributed to 2 or more wives.

Age: Results in Table 1 indicate that most of the sampled households were <50 years of age in both Bahi Rural District and Morogoro Municipality (81 and 76%, respectively). This is the age group which forms the highest proportion is able to provide a good workforce for production in a family. Hence, this is likely to be able to obtain income to enable them access health services.

Occupation: Results in Table 1 reveal that majority of sampled households were engaged in farming. However, there were more farmers in Bahi Rural District (89%) than in Morogoro Municipality (45%). Nevertheless, farming is still a more common occupation in Morogoro Municipality relative to other occupations. The reason could be that some of the people who are living in the peripheries of the Municipality have a rural setup type of life which allows them to engage themselves in farming. Also, some of those who are living in the Municipal centre do farming and have a tendency of shifting to farming areas during the rainy season. The reflection of the results is that for a crop producer when a health need arises crops are sold for cash to pay for quality health services. This situation illustrates the general trend in Tanzania where most of the rural inhabitants improve their livelihood from farms compared to those who are living in towns (URT, 2005). Likewise, the proportion of sampled households who are engaged in petty businesses and salaried employment was much higher in Morogoro Municipality than in Bahi Rural District. The reason for this situation may be that farming is the most suited occupation in rural areas than in towns or urban areas where civil services and petty business are likely to be dominant. Petty business is more common in most of the towns where there is a mixture of non-farm activities. Also, the proportion of livestock keeping is higher in Bahi Rural District (4%) than in Morogoro Municipality (1%). The reason for this situation could probably be that in rural areas there is a better environment for free grazing than in towns or urban areas where indoor and intensive livestock keeping is done. Nevertheless, the reflection is that, those who keep cattle are likely to be able to sell milk for cash and hence be able to access quality health services. Also, some of the livestock keepers might sell their animals and use the cash to get quality health services, although, this might not always be the case.

Characteristics of sampled health service providers: This study presents the social characteristics of 64 health service providers of the study areas. Characteristics of respondents which were considered, include; sex, occupation, education level and training level. Table 2 summarizes the characteristics of sampled health service providers in the two districts.

Sex: Results in Table 2 show that more than 3 quarters of the sampled health service providers for both Bahi Rural District (75%) and Morogoro Municipality (84.4%) were female. However, imbalance of sex distribution might have resulted from the recruitment of health service providers made by the government through the Ministry of Health. Above all, choice of a profession is, among other things, a subject of personal interest. Also traditionally, health services had been taken as suited for women, especially at a nursing level. Women have been regarded as being polite, kind, tender, honest and respectful.

Occupational status: Results in Table 2 reveal that there are more clinical officers in sampled health facilities of Morogoro Municipality (38%) compared to only 16% in sampled health facilities of Bahi Rural District. The reason

Table 2: Characteristics of health service providers by district

	Districts		
Variables	Bahi Rural District (N =32)	Morogoro Municipality (N = 32)	Total sample (N = 64)
Respondents sex			
Male	8 (25.0)	5 (15.6)	13 (20.3)
Female	24 (75.0)	27 (84.4)	51 (79.7)
Respondent's education level			
Primary	15 (46.9)	10 (31.3)	25 (39.1)
Ordinary secondary	15 (46.9)	17 (53.1)	32 (50.0)
Advanced	2 (6.2)	5 (15.6)	7 (10.9)
Respondent's professional training level			
Certificate	19 (59.4)	17 (53.1)	36 (56.3)
Diploma	13 (40.6)	14 (43.8)	27 (42.2)
Postgraduate diploma	0 (0.0)	1 (3.1)	1 (1.6)
Respondent's occupation			
Assistant medical officer	2 (6.3)	1 (3.1)	3 (4.7)
Clinical officer	5 (15.6)	12 (37.5)	17 (26.6)
Nursing officer	5 (15.6)	2 (6.3)	7 (10.9)
Nursing midwife	4 (12.5)	5 (15.6)	9 (14.1)
Public health officer	1(3.1)	0 (0.0)	1 (1.6)
Laboratory assistant	0 (0.0)	1 (3.1)	1 (1.6)
Medical attendant	9 (28.1)	9 (28.1)	18 (28.1)
Maternal and child health attendant	4 (12.5)	1 (3.1)	5 (7.8)
Assistant clinical officer	1 (3.1)	0 (0.0)	1 (1.6)
Laboratory technician	1 (3.1)	1 (3.1)	2 (3.1)

Figures in parentheses are the percentages

could be that rural areas are not preferred by most of the learned professionals due to poor infrastructure and working environment. The implication of this is that rural health facilities are likely to suffer from shortage of clinical officers who form the base of treatment. Clinical officers are the ones who attend patients first and make prescription hence without them the performance of health service delivery in respective health facilities is likely to be inefficient and ineffective.

On the other hand, there are more medical attendants in both Bahi Rural District (28%) and Morogoro Municipality (28%) than other professional categories which mean that there are many health service providers with low qualification. Medical attendants mainly have an obligation of assisting; hence, this situation is likely to affect negatively provision of health services. In a situation where there is a nurse and a medical attendant only, a medical attendant can pursue some of the health services which are above his/her level of qualification. Health service providers' occupational status is likely to determine ability, efficiency and effectiveness in the performance of the work.

Educational levels: According to Table 2, notable difference was not found in the education level attained by sampled health service providers. As can be seen from Table 2, majority of the sampled health service providers in both Bahi Rural District (47%) and Morogoro Municipality (53%) had ordinary level secondary school education. Similar picture was noted for primary school level education where Morogoro Municipality had 31% and Bahi Rural District had 47%. The implication of the results is that most of the sampled health service providers have secondary school education to enable them to understand their professional requirements and provide quality health services.

Professional training: Results in Table 2 do not indicate notable difference in the professional training levels of the sampled health service providers. As it is indicated in the Table 2, most of the sampled health service providers in both Bahi Rural District (59%) and Morogoro Municipality (53%) had certificate training level. Similarly it was noted for diploma training level that Bahi Rural District had 41% and Morogoro Municipality had 44%. The reflection of the result is that professionally health service providers are likely to be able to provide quality health services because successful performance of health services delivery requires trained manpower. Report from Dodoma rural district medical officer and Morogoro Municipal Medical officer indicate that there was an improvement in the training of professionals after the reforms.

The effect of health sector reform on morbidity: The study intended to get information on the trend of morbidity from the year 2003-2006 per each health facility. Results in Table 3 show that in Bahi Rural District, the number of out patients attending to the health facilities increased from year to year for each health facility except Mnkola dispensary. The implication could be that probably there had been an increasing work load to the available health facility and hence increase the demand of health services providers. The situation would also probably lead to poor performance of health services providers in some of the health facilities. The reason for this situation could possibly be associated with an increase of population in the respective study areas which is not proportion with the available health facilities. Similar findings were reported by DDMO and Women's Dignity Project (2004) that the increasing number of out patients in many parts of Bahi Rural District was not proportional to the number of health facilities available. On the other hand, results in Table 3 indicate that in Morogoro Municipality the number of out patients decreased with time for each health facility except in the year 2006 where the number of out patients increased for both Kingolwira dispensary and Mafiga health centre. The implication of the result was that the number of out patients attending to health facilities has been decreasing and hence creating a situation whereby health services provider's performance to be more efficient and effective. The reason for the decreasing number of sick people might be due to increasing number of private health services in urban

Table 3: Out Patient Department (OPD) morbidity per health facility 2003-2006

Districts	Health facility	2003	2004	2005	2006
Bahi Rural District	Bahi sokoni health centre	9676	14,800	14,808	15,516
	Ibihwa dispensary	1344	1948	2050	2741
	Munkola dispensary	4198	5698	5562	4224
	Chamwino health centre	9774	11,498	22,101	23,045
	Buigiri dispensary	3590	3619	3731	4215
	Manachali dispensary	2071	2722	5390	3909
	Chalinze dispensary	2504	2417	2315	2600
Morogoro Municipal	Kingolwira dispensary	21,846	18,450	14,035	17,154
	Uhuru health centre	26,681	24,952	21,389	18,790
	Mafisa health centre	7680	7590	7529	7726
	Kihonda Magereza dispensary	-	-	-	-

areas. This could also be associated with the decreasing number of patients served per medical officer per year. Furthermore, as stated by URT that Tanzania Government through the Ministry of Health and Social Welfare has been encouraging private public partnership in health services provision. Results support report by MMMO that the number of private health facilities was high in Morogoro Municipality and has lessened work load in the public health facilities.

Health problems can only be solved through multi- sectoral cooperation. Such sectors include water and sanitation which if its operation is not adequate may cause or accelerate health problems like spread of typhoid, cholera and amoeba diseases (URT, 2005). Results in Table 4 indicated that most of the sample households have a good source of clean and safe water. Bahi Rural District had the highest (65) proportion relatively to Morogoro Municipality (63%).

The implication of this was that majority of the sample household in both study areas were having good source of clean and safe water. Hence, this would mean availability of clean and safe water enabled people to have good health. However, DDMO reported that tape water in most of the study area was too salty hence people tend to prefer water from shallow bore holes which were not clean and safe. Also, MMMO reported that majority of the sample households who were living in the peripheries of Morogoro Municipality use water from rivers which was not clean and safe and hence tend to subject themselves to diseases which might also increase rate of morbidity. These indeed are contradictories with the advocated achievements.

Respondents were asked if they had pit-latrine in their respective homesteads. Results in Table 4 indicate that majority of sample households in both study areas had pit-latrine. However, Morogoro Municipality indicates the highest (97%) proportion. The fact that majority of sample household had a pit-latrine then most likely availability of a pit-latrine could not be one of the causes of diseases which would likely increase rate of morbidity. The reason for the majority of having pit-latrine could be associated with the provision of health education by health services providers in the respective areas as well as awareness on proper sanitation.

With regard to presence of sick person in the past 16 months at a household, the findings of this study reveal that majority of sample households had a sick person for that given period time. Nevertheless, Bahi Rural had the highest (96%) proportion. The fact that majority of the sample households had a sick person then it reflects that morbidity has been persisting in most of the family household. Hence, this would mean that number of sick people was likely to increase in health facilities and that health of the people in the respective areas was in jeopardy. This would probably increase work load to health services providers and affect people's development. The results also are in line with the finding by DDMO that there were many patients attending public health facilities especially during rainy seasons.

The effect of health sector reform on infant mortality and maternal mortality: Respondents were asked to give comments on the situation of infant mortality in their respective areas. Results in Table 5 reveal that majority of respondents pointed out that there was an improvement on infant mortality. The reason for this could be related to the community health education, mother and child health education usually provided to mothers of the bearing age during clinic times. In contrary it was reported by URT (2005) that infant mortality has not changed much due to the decline of the proportions of births that took place in health facilities.

Table 4: Source of clean and safe water; availability of pit-latrine per district-households; availability of a sick person

	Districts (N = 128)		
Variables	Bahi Rural District	Morogoro Municipal	Total (N = 256)
Availability of clean and safe water			
Yes	64.8 (83)	63.3 (81)	64.1 (164)
No	35.2 (45)	36.7 (47)	35.9 (92)
Sub-total	100.0 (128)	100.0 (128)	100.0 (256)
Comment of the situation of safe and clean water			
Improved	50.8 (65)	57.0 (73)	53.9 (138)
Not improved	49.2 (63)	43.0 (55)	46.1 (118)
Sub-total	100.0 (128)	100.0 (128)	100.0 (256)
Availability of a pit-latrine			
Yes	56.3 (72)	96.9 (123)	76.6 (195)
No	43.8 (56)	3.1 (4)	23.5 (60)
Sub-total	100.0 (128)	100.0 (127)	100.0 (255)
Has there been any sick person in your family for the past 16 months			
Yes	96.1 (123)	93.0 (119)	94.5 (242)
No	3.9 (5)	7.0 (9)	5.5 (14)
Sub-total	100.0 (128)	100.0 (128)	100.0 (256)

Figures in parentheses are the sample household heads sizes for Bahi Rural District (128) and Morogoro Municipality (128)

Table 5: Infant mortality, maternal mortality and death in a family by households

Variables	Districts (N = 128)		Total (N = 256)
	Bahi Rural District	Morogoro Municipal	
Comment on the situation of infant mortality			
Reduced	98.4 (126)	100.0 (128)	99.2 (254)
Not reduced	1.6 (2)	0.0 (0)	0.8 (2)
Sub-total	100.0 (128)	100.0 (128)	100.0 (256)
Comment on the situation of maternal mortality			
Reduced	98.4 (125)	100.0 (128)	99.2 (253)
Not reduced	1.6 (2)	0.0 (0)	0.8 (2)
Sub-total	100.0 (127)	100.0 (128)	100.0 (255)
Has there been any death in your family for the past 16 months			
Yes	10.9 (14)	13.3 (17)	12.1 (31)
No	89.1 (114)	86.7 (111)	87.9 (225)
Sub-total	100.0 (128)	100.0 (128)	100.0 (256)

Figures in parentheses are the sample household heads sizes for Bahi Rural District (128) and Morogoro Municipal (128)

Table 6: Infant and maternal mortality per district by health service providers

Variables	Districts (N = 32)		Total (N = 32)
	Bahi Rural District	Morogoro Municipal	
Comment on situation of Infant mortality			
Reduced	100.0 (32)	100.0 (32)	100.0 (64)
Not reduced	0.0 (0)	0.0 (0)	0.9 (0)
Sub-total	100.0 (32)	100.0 (32)	100.0 (64)
Opinion on maternal mortality			
Reduced	100.0 (32)	100.0 (32)	100.0 (32)
Not reduced	0.0 (0)	0.0 (0)	0.0 (0)
Sub-total	100.0 (32)	100.0 (32)	100.0 (32)

Figures in parentheses are the sample household heads sizes for Bahi Rural District (32) and Morogoro Municipal (32)

With regard to maternal mortality, respondents indicated improvement of maternal mortality after the reform. The reason for the decline of maternal mortality could be associated with the improvement of maternal and child health services which included; construction of maternal wards which provide room for safe delivery, maternal and child health education which enable women of the child bearing age to deliver at the health facilities, promotion of adequate nutrition and control of communicable diseases, provision of adequate and equitable maternal and child care services (URT, 2005). Similar finding was reported by MMMO that mortality have declined in Morogoro Municipality.

Similar findings are reported by Women's Dignity Project (2004) that infant mortality is greatly reduced in places where by majority are able to access a health facility easily. Together with results concur to what has been reported by the UN (2007) that infant mortality has declined globally and it is becoming clear that the right life-saving interventions are proving effective in reducing the number of deaths due to the main child killer diseases such as malaria.

Results in Table 6 show that all health service providers had the opinion that infant mortality had declined by 100% for each district. The implication of the result was that the performance of health service providers has probably been improved to ensure such a good situation.

Results in Table 6 further indicate that all respondents agreed that there had been an improvement in maternal deaths. The results imply that number of maternal deaths declined as a result of Health Sector Reforms.

The reason could be that there had been positive changes in the provision of maternal services. It was also reported by DDMO that the trend of maternal mortality in Bahi Rural District indicate tendency of declining for the years 2006 it was 187/100,000; 2007 it was 167/100,000 and for the year 2008 it was 124/100,000. However on the other hand, URT (2005) reported that there was no substantial progress made in the reduction of maternal mortality. Whereas, UN (2007) report that over half a million women still die each year from treatable complications of pregnancy and childbirth.

CONCLUSION

Morbidity: Assessment made on morbidity as related to health sector reform indicates that number of patients in both study areas tended to decrease with time and would probably mean that reform had a positive change on health services delivery. In addition improvement in sources of safe and clean water reduced tendency of diseases occurrence.

Mortality: Assessments on maternal and infant mortality have shown that there had been tendency of reduction in both study areas. The reason for the reduction in mortality is likely to be related to the initiatives made by health services providers in identifying causes of deaths respectively and find or put in place measures to address it seriously. Also improvement due to reform in the provision of drug and medical supplies, equipment and increase the number of staff are likely to have contributed to the reduction of maternal and infant mortality.

RECOMMENDATIONS

On the basis of the major findings of the study and the conclusions made, the following recommendations are made in order to improve the quality of health services delivery in Tanzania.

Collaboration with other sectors: Morbidity and mortality have been found been reduced, however, if more success is to be attained then the Tanzania Government should work hard to ensure that other related sectors like water, agriculture and livestock, environment collaborate well. This is likely to ensure great success in the reduction of morbidity and mortality in Tanzania.

Emphasis on the improvement of health services delivery: There is a clear need to put more emphasis in improving the status of health services delivery especially in rural areas since health problems are more critical in rural areas than in urban areas. Therefore, the government through the Ministry of Health and Social Welfare should place health facilities into close proximity to rural population, since high population of the working force in farming is living in rural areas. Health policy should be reviewed partly on the issue of distance to health facilities in order to ensure availability of a health population.

Farmers should be encouraged to improve their farming systems through the use of fertilizers, oxen plough and tractors in order to increase their yield. Hence, this might increase the probability of earning high income to enable them access quality health services. The ministry of health Tanzania in collaboration with the district councils should put more emphasis on health education to the community members so as to create awareness on the importance of health services.

The Ministry of Health Tanzania should put more effort to train more medical staff to meet the increasing demand of staff especially in the rural health facilities. Hence, there is a need to increase the number of health training institutions.

The Ministry of health Tanzania is argued to ensure that, rural health facilities are improved in terms of structure, drug and medical supplies. Therefore, construction of new structures, rehabilitation and improve operation system of medical store department. Distribution of health facilities between urban and rural areas should also be taken into consideration to allow equal chances to access health services. Together with the government should encourage private practitioners to provide health services in the rural areas.

Policy review: Water, nutritional and environmental policies probably should be reviewed to critically be able to curb health problems simultaneously to health policy.

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