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FACTORS AFFECTING HEALTH SERVICE PROVISION IN TANZANIA: CASE OF PUBLIC PRIMARY HEALTH CARE FACILITIES IN DODOMA REGION

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Summary:

Health services are fundamental for poverty reduction in developing countries. However, its pro vision is faced with problems. Data to indicate the causes of these problems is missing in Tanzania. Hence, a study to analyze factors that affect health service provision in Tanzania was carried out in Dodoma Region, specifically in the public primary health care facilities of Dodoma Urban and Kondoa Districts. Data was collected through structured and semi-structured interviews, as well as by participant observations. Cross-sectional research design, followed by cluster sampling was used to obtain a total sample of 394 respondents. Binary logistic regression results revealed that health service provision was significantly ($p < 0.05$) affected by various factors. These included poor working environment and poor infrastructure. Others significant factors are low budget allocation in the health sector, lack of ethical conduct among health workers, lack of community participation, the low income in society, poor management of health plans and lack of health education among patients. Thus the study recommends that the Tanzanian Government and other less developed countries, increase budget allocation for the health sector, provide a balanced professional training to all mid-health cadres and ensure the effective management and implementation of health plans. The improvement of salaries and working conditions in all public primary health care facilities are also critical factors for success.

Background Information

There is growing evidence that points out inadequacies in the provision of health services in most primary public health care facilities in developing countries. Cross-national research has demonstrated a widespread application of ineffective and / or outmoded curative care practices and inadequate or inappropriate tertiary care for seriously ill children (Nolan *et al.*, 2001). It has also been reported that the provision of basic prenatal, natal and postnatal care procedures varies from one country to another (WHO, 2001). Countries in sub-Saharan Africa are still suffering from insufficient and poor quality health service provision but various efforts have been made to overcome some of these problems (Mamdani and Bangser, 2004; Mwaikambo, 2010). In Tanzania, health service provision is unfavorable regardless of the efforts made by the government. The reasons for these inadequate health services provision has not been made clear, especially in Dodoma region. This paper intends to analyze the factors that hinder health service provision in Tanzania, specifically in public primary health care facilities of Dodoma Region.

Theoretical and Empirical Perspectives on the Factors Affecting Health Service Provision

Theoretical Perspectives

Factors affecting health service provision in communities are well acknowledged in various theories of social development such as structural functionalism, vicious circle of poverty and leadership theory. Structural functionalism theory was developed by Talcott Parsons (Johnson, 1993). The theory concentrates on the positive, as well as the negative functions of social structures. It explains the role of social structures and institutions in society, the relationship between these structures and the manner in which they constrain the actions of individuals. The theory makes seven main assumptions. These focus on several levels of analysis including society, community, individual and social unit, such as family and organizations (McClelland, 2000). These are discussed in the section below.

i. Systems have a property of order and an interdependence of parts meaning that societies and social units are held together by co-operation and orderliness.

ii. Systems tend toward self-maintaining order, or equilibrium, that is societies and social units work best when they function smoothly as an organism, with all parts working toward the "natural" or smooth working of the system.

iii. The system may be static or involved in an ordered process of change.

iv. The nature of one part of the system has an impact on the form that the other parts can take.

v. Systems maintain boundaries within their environments, thus natural (external) environments are separate but adapt to each other. The same dynamic occurs within societies and/or social units - if one or more parts significantly conflict with others, others must adapt.

vi. Allocation and integration are two fundamental processes necessary for a given state of equilibrium within a system, for example, division of labor and positions help maintain balance; each part interrelates to create efficiency and harmony; the most capable individuals must be motivated to fill the most important roles/positions.

vii. Systems tend toward self-maintenance involving control of boundaries and relationships of parts to the whole, control of the environment, and control of tendencies to change the system from within.

The implication of the Structural Functionalism theory in this study is that a society is an entity made up of many integrated parts - if one part changes then the social structure will also change. Thus, if government fails to perform its roles in the health sector, the problems of health service provision will persist and vice versa.

The idea of vicious circle of poverty was developed by Ranger Nurkse when he looked at the problems of capital formation in underdeveloped countries (Sachs, 2005). He argues that a country is poor because it is poor. A society with low income has both low levels of savings and low levels of consumption. The low level of savings means low investment, while the low levels of consumption means there is not enough market to induce investments, even if the capital for investment is available. This low investment in turn, means little ability to expand productive capacity and so results in low incomes in the economy. The notion of the vicious circle theory has important implications in this study. Drawing from the argument of the theory, factors that might promote or hinder effective health service provision are the levels of income of the

societies themselves. In this regard, a government with adequate income is capable of providing for the basic needs to the society, including health services.

Furthermore, leadership has been described as the process of social influence in which one person is able to enlist the aid and support others in the accomplishment of a common task. Leadership is ultimately about creating a way for people to contribute in making something extraordinary happen. Successful leaders will tend to have a high need for power, a low need for affiliation and a high level of activity inhibition (self control) (Kouzes and Posner, 2007). Leadership also involves an element of goal management and vision. A vision provides direction to the influence process. A leader can have one or more visions of the future that will help move a group successfully forward. Hence, the leader must communicate the vision, or goal, to followers in such a way that they adopt that vision as their own. Leaders must not only observe the vision themselves; they must have the ability to enable others to see it also, through various techniques such as narratives, metaphors, symbolic actions, incentives and penalties (Chemer, 2002). Leadership theory has very important implications in this study, because through leadership people within the society can understand their responsibilities and perform their intended activities well. If leadership in the health sector is weak it is difficult to attain the intended goals, as no one will be held responsible for providing poor and inadequate health services.

The three theories have a relationship to health service provision. The social structures within a society, income and leadership influence each other. For example, poor leadership leads to improper management of activities and so low levels of income. This increases poverty and thus insufficient health service provision persists in the society.

Empirical Perspectives

Health services are the most visible part of any health system, in any society, for both consumers and the general public. Effective health service provision depends on having key resources such as motivated staff, equipment, information and finance, and adequate drugs (WHO, 2010). Improving access, availability, acceptability and coverage of health service provision also depends on the ways services are organized and managed, and on the incentives influencing

health care providers and users. Many questions remain about how to improve the organization and management of health service provision so as to achieve better and more equitable coverage and quality (WHO, 2012).

Mwaikambo (2010) identified health system and non-health system factors that are affecting health service provision within a community. Health system factors include inadequate implementation of pro-poor policies, weak health infrastructure, limited access to health services, inadequate human resources, shortage of skilled health providers, weak referral systems, lack of diagnostic equipment and supplies, and inadequate co-ordination between public and private facilities. Non-health system factors include inadequate community involvement and participation in the planning, implementation, monitoring and evaluation of health services, socio-cultural beliefs and practices, gender inequality, a weak educational sector and poor health seeking behavior.

Generally, health services provision is poorly accessed by the very poor and by women in particular (Mamdani and Bangser, 2004). Key obstacles are health care charges, long distances to health care facilities, inadequate and unaffordable transport systems, long queues to get services, poor quality of care, lack of medication (frequent out of stock), lack of well trained staff and poor governance and accountability mechanisms. There have been improvements in availability of drugs, which are a positive development, but some continuing deficiencies, and particularly the cost of drugs, still make them unavailable to many poor people. Discrimination against clients who are not able to pay and poor referral systems, all result in the low quality of care provision (Mamdani and Bangser, 2004).

Study Area and Methodology

The research was conducted in Dodoma Region, specifically in Dodoma urban and Kondoa Districts, Tanzania. Dodoma is among the 30 regions in Tanzania. It is centrally located on the Tanzania Mainland laying between 5^0 30' and 7^0 latitude and the 36^0 longitude line. The region is administratively divided into six districts namely: Dodoma Urban, Bahi, Chamwino, Kondoa, Mpwapwa and Kongwa (NBS, 2012). The region covers an area of 41,310 km² with 1,698,996 inhabitants characterized by Bantu speaking people who form 75% of the regional population.

These include the Gogo, Rangi, Nguu, Zigua, Kaguru, and Sagara. The Nilotics or Nilo Hamites form another group, which include the Masai, Fyomi, Mang'ati, Mbulu and Tatoga. Apart from these, the region comprises other ethnic groups from all over the world, including Indians, Arabs and Somalis who are mainly found in urban centers and rural trading centers. Health service provision in the region is still unfavorable as there is still a high maternal mortality rate, high under-five mortality rates and a high prevalence rate of HIV/AIDS. Apart from that, a person needs to walk for about two to ten kilometers, on average, in order to get services like health, school, water and market. Thus, accessibility to basic social services is still a problem in the region (Nassoro, 2010)[1].

A cross-sectional research design was used during data collection. Cluster sampling, followed by the simple random sampling technique, was used in the study. The study adopted a questionnaire survey, interview and participant observation methods to collect the primary data in the field. Based on the population of the two districts the sample size was 394 respondents (169 from Dodoma Urban District and 225 from Kondoa District). The sample size was calculated using the equation 1 below:

$n = (Z^2\ pq)/d^2$……. Equation 1 (Kothari, 2005)

Where;

n = Sample size when population is greater than 10,000
Z = Standard normal deviate, set at 1.96 (≈ 2.0) corresponding to 95% confidence level,
p = Proportion in the target population estimate; if not known use 50%.
d = Degree of accuracy desired, set at 0.05 or 0.02.
q = 1.0 – P

Data analysis in this study was based on the inferential statistic, whereby a binary logistic regression model was developed to determine the main factors affecting health service provision in public primary health care facilities of Dodoma Region. The model represents the probability of an event to occur, whereas the probability of the event not to occur is given as pro (no event) = 1- pro (event). The equation 2 was used in the analysis:

[1] Nassoro, M (2010), *Dodoma Regional Annual Plan 2010-2011*, Dodoma General Hospital. Dodoma, Tanzania.

$Yi = 1/1+ e^{zj}$ …… Equation: 2 (Wuensch, 2008).

Where:

Yi = dependent variable depicting health services delivery.
zj = the combination of influencing factors (independent variables) i.e. β0 j + β j 1X j1 + β j 2X j 2 +…… β j pX j p.
β0 = Constant term of the model without the independent variables
β = independent variable coefficient showing the marginal effects (positive or negative) of the unit change in the independent variables on dependent variable.
e = is the base of natural logarithm, approximately exp = 2.71828.
p = total number of independent variables.
X1 to Xp = independent variables

Results and Discussion

Problems with health service provision in public primary health care facilities of Tanzania

Trends show that there are various problems with health service provision in the public primary health care facilities of Tanzania. This is verified in Figure 1 whereby 322 (94.2%) respondents indicated that there are problems relating to the provision of health services in public primary health care facilities, while only 20 (5.8%) respondents reported that there were no problems with these facilities.

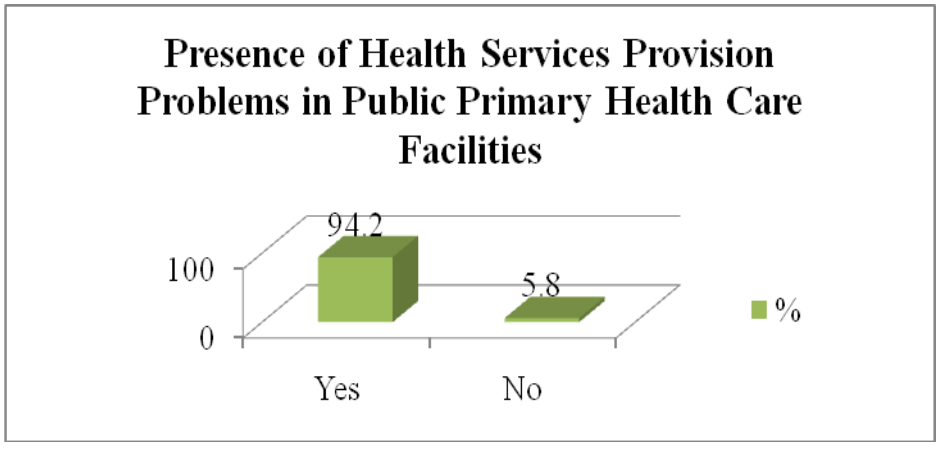

Figure 1: Presence of health service provision problems in public primary health care facilities

Source: Fieldwork Survey, 2012

During the study it was found that the problems in health service provision facing public primary health care facilities, as reported by respondents, were lack of medicines 264 (28.3%), insufficient number of doctors and nurses 213 (22.8%), high costs for drugs and treatments 188 (20.2%), long waiting time for treatment 144 (15.4%) and long walking distances from home to health care facilities 67 (7.2%) (as it is indicated in Figure 2). These problems are similar to those identified by Olenguruma (2012)[2] and Watterberg (2000)[3] who argued that inadequate transportation, long distances and fewer doctors complicate health service provision in rural communities. Therefore, problems such as a lack of medicine, absence of enough skilled personnel, high costs for drugs and long waiting times affects both health service provision and its quality and hinders the public seeking to use public primary health care facilities in Dodoma Urban and Kondoa Districts.

[2] Olenguruma, O. (2012), challenges facing health sector in Tanzania; *mwananchi Newspaper,* ISSN 0850-7573, No. 04420

[3] Watterberg, E. W. (2000), Factors affecting health disparities in rural areas, [www.rural.health.resources.com/speech.html], site visited on 12/08/2012.

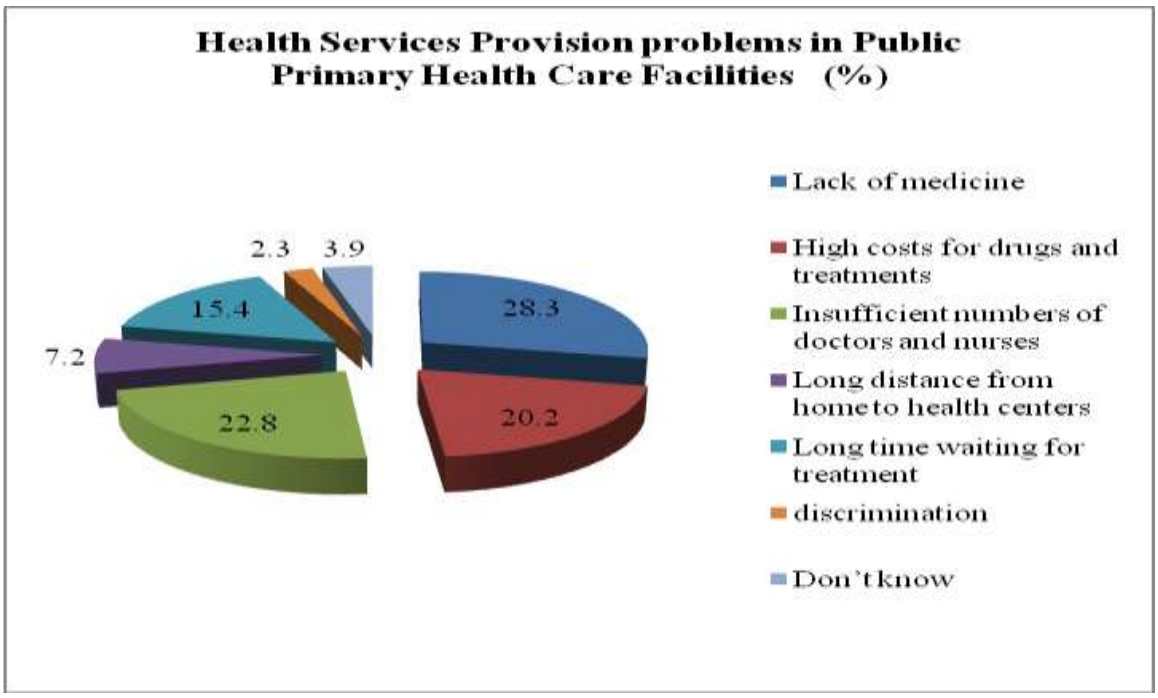

Figure 2: Health service provision problems in public primary health care facilities

Source: Fieldwork Survey, 2012

Factors causing problems in public primary health care facilities, as mentioned by respondents in the two districts, are presented in Table 1. These are: lack of ethical conduct for health workers 179 (22.3%), insufficient infrastructure 97 (12.1%), poor management of health plans 87 (10.8%), poor working environment 63 (7.8%), insufficient health care facilities 57 (7.1%), insufficient income of people to buy medicines and pay the user fees 47 (5.9%) and low budget in health sector 44 (5.4%). Other reasons were: inadequate procedures for ordering drugs 20 (2.5%), high living costs 39 (4.9%), poor community participation 11 (1.4%), high transport costs and lack of reliable transport 17 (2.1%) as well as insufficient salaries for health workers 29 (3.6%). These results are supported by Watterberg (2000)[4] who observed that extreme geographic isolation, fewer hospitals, low income, inadequate insurance coverage and lower

[4]Watterberg, E. W. (2000), Factors affecting health disparities in rural areas, [www.rural.health.resources.com/speech.html], site visited on 12/08/2012.

rates of service utilization affect the health care safety net in rural communities. Therefore, these identified factors, presenting problems for health care service provision in public primary health care facilities, affect such provision in Dodoma Urban and Kondoa Districts.

Table 1: Reasons for health service provision problems in public primary health care facilities

Reasons	(%)
Budget in health sector	5.4
Working environment	7.8
Salaries for workers	3.6
Ethical works for workers	22.3
Facilities of health care	7.1
Transport costs	2.1
Community participation	1.4
Income of the society	5.9
Living costs	4.9
Infrastructure	12.1
Management of health plans	10.8
Procedures for ordering drugs	2.5
Total	100

Source: Fieldwork Survey, 2012

Furthermore, logistic regression analysis was undertaken to identify factors likely to affect health services provision in public primary health care facilities of Dodoma Urban and Kondoa Districts. The factors tested were: budget in the health sector, working environment, ethical conduct for workers, community participation, income level of the society, management of health plans and infrastructure. These factors were used as independent variables in the logistic regression model as it is indicated in Table 2.

Table 2: Factors affecting health service provision in public primary health care facilities

Variables	B	SE	Wald	df	sig	Exp (B)

Constant	5.921	8.688	12.322	1	.000*	374.127
Budget in the health sector	-.125	.231	.294	1	.588 ns	.882
Working environment	.022	.252	.930	1	.008*	1.022
Ethical works for workers	-.287	.202	2.022	1	.155 ns	.751
Infrastructure	.004	.201	.985	1	.000*	1.004
Community participation	-.156	.227	.475	1	.491 ns	.856
Income of the society	-.099	.304	.107	1	.744 ns	.905
Management of health plans	-.351	.237	2.190	1	.139 ns	.704

Source: Fieldwork Survey, 2012

Note: The model -2Log Likelihood = 137.483; model chi-square = 14.887 at $p < 0.05$; overall percentage = 94.2%; number of cases = 342; Nagelkerke R-square = 0.43; β = regression coefficient; SE = standard error of the estimate; Wald = Wald statistics depicting relationship between dependent and independent variables; df = degree of freedom; Exp(β) = odds ratio (probability of even to occur over probability of not occurring); Sig = significance level or p values; * = statistically significant at $p < 0.05$ level and ns = non-significant at $p > 0.05$ level of significance.

Logistic regression results in Table 2 indicated -2 log likelihood of 137.483 which implies good fitness of data to the model, whereas the overall percentage of 94.2% signifies correct predictions of independent variables by the model. The model chi-square of 14.887 at 13 degree of freedom and $p < 0.05$ implies significant influence of the independent variables on the dependent variable. Coefficient of determination **(**R^2) obtained was 0.43 indicating that, the independent variables mentioned in Table 2 accounted for 43% of the variation of the dependent variable in the model. Hence, the listed independent variables determine the dependent variable (health services provision in public primary health care facilities) by 43%. The remaining 57% is determined by other factors not identified in this study.

The Wald statistics determine whether particular independent variables have significant effect on the dependent variable. In that regard, two factors were significantly likely to affect health service provision in public primary health care facilities in Dodoma Urban and Kondoa Districts (see Table 2). These are: working environment with $p = 0.008$ and infrastructure with $p = 0.000$. In the analysis, it was found out that other factors were not statistically significant at $p < 0.05$. These are: budget in the health sector with $p = 0.588$, ethical conduct for workers with $p = 0.155$, community participation with $p = 0.491$, income of the society with $p = 0.744$ and management

of health plans with p = 0.139. Therefore, these independent variables do not have significant effect on health service provision in public primary health care facilities in Dodoma Urban and Kondoa Districts. These factors are discussed in the following sections.

Budget in the health sector

The results in Table 2 has revealed a negative regression coefficient (β = - 0.125) between budgets in the health sector and health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts. This implies that a decrease of budget in the health sector affects such health service provision by a factor of 0.882. These results are supported by Olenguruma (2012)[5], who argued that the presence of very little budget in the health sector affects the purchasing of drugs and hence service provision. Therefore, a decrease of one unit of budget in the health sector affects health service provision in public primary health care facilities by a factor of 0.082, while an increase of 1 unit of budget in the health sector increases health service provision in public primary health care facilities by a factor of 0.082, in Dodoma Urban and Kondoa Districts.

Working environments

The results in Table 2 revealed a positive regression coefficient (β = 0.022) between working environments and health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts. This implies that working environments are significantly (p = 0.008) affecting the magnitude of health service provision by a factor of 1.022. Therefore, one unit increase of working environment increases health service provision in public primary health care facilities by a factor of 1.022 and vice versa. These results are supported by Watterberg (2000)[6] who argued that extreme geographical isolation limits providers' professional and

[5] Olenguruma, O. (2012), challenges facing health sector in Tanzania; *mwananchi Newspaper*, ISSN 0850-7573, No. 04420

[6]Watterberg, E. W. (2000), Factors affecting health disparities in rural areas, [www.rural.health.resources.com/speech.html], site visited on 12/08/2012.

personal interactions with their peers and access to continuing medical education as well as training opportunities. Therefore, a poor working environment limits the ability of personnel to work effectively in various health care facilities, which also affects the quality of health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Ethical conduct for workers

Table 2 shows a negative regression coefficient (β = - 0.287) of ethical conduct for workers at p = 0.155. This implies that a decrease in 1 unit of ethical conduct for workers in public primary health care facilities decreases health service provision by the factor of 0.751. These results are supported by Amooti-kaguna and Nuwaha (2000); Grossmann-Kendall *et al.* (2001); and Mutsuokaa (2010), who observed that abusive and harassing behaviour of health workers, were known to be the barriers to access and utilization of health services within communities. This affects lives of community members as most of them die due to the lack of essential health care facilities. Therefore, lack of ethical conduct for workers leads to poor utilization, access and provision of health services in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Infrastructure

Table 2 shows a positive regression coefficient (β = 0.004) between infrastructure and health service provision. This implies that an increase in 1 unit of infrastructure is significantly (p = 0.000) increasing health service provision in public primary health care facilities by the factor of 1.004 and a unit decrease of infrastructure reduces health service provision by a factor of 1.004. These findings are also supported by Nsimba *et al.* (2002) and Matsuokaa (2010) who stated that the absence of infrastructure generally affects health service provision. A lack of infrastructure meant that patients were sometimes not allowed to rest within the health care facilities. Thus, some women hesitated to deliver their babies in the health care facilities and possibly visited private facilities (faith based), traditional healers and/or traditional birth attendants.

Furthermore, Olenguruma (2012)[7] identified that there is a need to increase health care facilities in Tanzania by more than 40%, as the available facilities are not proportional to the country's population. Therefore, poor infrastructure decreases health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Community participation

Table 2 shows a negative regression coefficient (β = - 0.156) of community participation and health service provision in public primary health care facilities. This implies that a decrease in 1 unit of community participation at p = 0.491 decreases health service provision in public primary health care facilities by the factor of 0.856, while an increase of community participation increases health service provision by a factor of 0.856. The findings are further supported by Mwaikambo (2010)[8] who argued that inadequate community involvement, and participation, in planning, implementation, monitoring and evaluation of health services are among the non-health system factors affecting health service provision in a community. Moreover, as reported by Mamdani and Bangser (2004), lack of community participation leads to the failure of the authority to ensure services respond to the priority needs of the beneficiaries. This facilitates abuse of power, financial mismanagement and corruption. Therefore, lack of community participation reduces the efficiency of health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Income of the society

Table 2 shows a negative regression coefficient (β = - 0.099) between income of the society and health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts. This implies that income of the society at p = 0. 744 affect health service provision in public primary health care facilities by a factor of 0.905. Consequently, a unit decrease in income

[7] Olenguruma, O. (2012), challenges facing health sector in Tanzania; *mwananchi newspaper*, ISSN 0850-7573, No. 04420

[8] Mwaikambo, E. (2010), Improving maternal, newborn and child health in Tanzania: From science to action, A presentation on Paediatrics and Child Health at Hubert Kairuki Memorial University on 5th February, 2010.

of the society indicates a decrease in health service provision by a factor of 0.905 and an increase of 1 unit of the society's income increases the health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts by a factor of 0.905. These results concur with the findings of Sachs (2005) who supported the arguments of 'vicious circle of poverty theory'. The theory argues that "poor health service provision persists because the society is poor. A society with low income has both low levels of savings and low levels of consumption. The low level of savings means low investment, while the low levels of consumption means not enough market to induce investments even if the capital for investment is available. The low investment in turn means little ability to expand productive capacity that results in low incomes in the economy". Therefore, if the society has low income it also fails to get or utilize health care facilities, hence reduces access, utilization and provision of health care services. Furthermore, Gounder (2012) and White *et al*. (2001) reported that family income and ability to utilize resources are strongly associated with health services' utilization patterns in communities. Hence, lack of income affects health service provision and utilization in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Management of the health services plan

Table 2 shows a negative regression coefficient (β = - 0. 351) between the management of health services plan and health service provision. This implies that a unit decrease in the management of health services plan at p = 0.139 decreases health service provision in the public health care facilities by the factor of 0. 704, while a unit increase in the management of health plan increases such health service provision by a factor of 0. 704. These results are in line with the work of OECD (2003)[9]; McDaniel (2003)[10]; Cook and La-Vigne (2002)[11] and Caldoe (2001)[12] who

[9] OECD. (2003), Checklist for e- Government leaders [http://www.oecd.org/ dataoecd/62/58/11923037.pdf], site visited on 10/04/2012.

[8] McDaniel, E. M. (2003), facilitating cross-boundary leadership in emerging e-government Leaders, [http://proceedings.informingscience.org/ IS2003Proceedings/docs/028McDan.pdf], site visited on 02/03/2012.

[9] Cook, M. E. and LaVigne, M. F. (2002), Making a case for local e-government [http://www.ctg.albany.edu/publications/guides/making-a-case/making-a-case.pdf], site visited on 12/04/2012.

found that weak leadership within management reduces the process of health care service provision and vice versa. Hence, strong management remains the core of success in any society. Therefore, lack of proper management of the health services plan reduces health service provision in public primary health care facilities of Dodoma Urban and Kondoa Districts.

Conclusions and Recommendations

The paper concludes that health service provision in public primary health care facilities in Dodoma Urban and Kondoa Districts is significantly affected by the working environment and infrastructure. Other factors were budget in the health sector, ethical conduct for workers, community participation and income of society and poor management of health plans. Consequently, it is recommended that the Government of Tanzania should increase annual budgets for the health sector in order to improve the status of health care facilities, quality of health service provision and build a sense of trust and confidence among community members, which would in turn increase the utilization of health care facilities in the region and elsewhere in Tanzania. Increasing the budget would also enable public primary health care facilities to maintain required standards, such as keeping buildings clean with adequate space, the availability of essential drugs, employing well trained health workers and paying their salaries in a timely manner, the availability of ambulances, laboratory and other diagnostic equipments.

Furthermore, the Tanzanian Government, through the Ministry of Health and Social Welfare, should provide balanced professional training of all health cadres in order that they are equipped with the required skills and so ensure safety monitoring, cost-effectiveness and availability of health services. Thus, comprehensive basic training and continuing education should be provided periodically to all health workers in order to update their knowledge and skills on regular basis.

[10] Caldow, J. (2001), seven e-government leadership milestones. In the forthcoming book Vision and revision, [http://www-01.ibm.com/ industries/government/ieg/pdf/seven_egov_milestones.pdf], site visited on 12/04/2012.

This can be facilitated by an increase in the size and intake of existing training institutions, while bearing in mind the needs of communities and improvements to the working environment. Curricula in health education should also be modernized to take into account the latest developments and they should also insist on the professional ethics of health workers at their work stations

The Tanzanian Government, through the Ministry of Health and Social Welfare, should ensure effective management and implementation of health plans. Improvements in salaries and working conditions are a critical factor for success. Thus, there should be additional flexible career paths, supportive supervision, recognition of credit hours and continuing professional development, to foster motivation as part of retention strategies.

Community participation and involvement in all health plans is insisted on in this paper, and education should be introduced to raise community awareness and to stress the importance of using available formal health care facilities.

REFERENCES

Amooti-Kaguna, B and Nuwaha, F. (2000), Factors influencing choice of delivery sites in Rakai district of Uganda, *Social Science and Medicine*, Vol. 50, No. 23, 203-213.

Chemer, M. M (2003), *Coagnitive, social and emotional intelligence of transformational leadership: efficiency and effectiveness*, Paulist publisher, New Jersey.

Gounder, R and Xing, Z. (2012), Impact of education and health on poverty reduction: Monetary and nonmonetary evidence from Fiji, *Economic modeling*, Vol. 29, No. 3, 787-794.

Grossmann-Kendall, F. Filippi, V. De Koninck, M and Kanhonou, L. (2001), Giving birth in maternity hospitals in Benin: Testimonies of women. *Reproductive Health Matters*, Vol. 9, No. 18, 90-98.

Jonson, M. M (1993), Functionalism, is Estrangement necessary? Aldine de Gruyter, New York.

Kothari, C.R. (2005), *Research Methodology: Methods and Techniques*. Second Edition, New Age International Publishers, Washington DC

Kouzes, J and Posner, B. (2007), *The leadership challenge*, CA, Jersey.

Mamdani, M and Bangser, M. (2004), Poor people's experiences of health services in Tanzania: A literature review, Reproductive health matters, Vol. 12, No. 20, 138-153.

Matsuokaa, S. (2010), "*Perceived barriers to utilization of maternal health services in rural Cambodia*" Cambodia.

McClelland, K. (2000), Functionalism, [http://web.grinnell.edu/courses/soc/s00/soc11101/IntroTheories/Functionalism.html], site visited on 08/08/2012.

Nolan, T. Angos. P. (2001), Quality of care for seriously ill children in less-developed countries, *Lancet*: 106-110.

Nsimba, S. E. D, Massele, A. Y, Erikson, J. Gustaffson, L. Tomson, G and Warsame, M. Y. (2002), Case management of malaria in under - fives at primary health care facilities in a Tanzanian district, *Tropical medicine and International health*, Vol. 7, 201-209.

Sachs, J. (2005), *The End of Poverty,* The Penguin Press, New York.

White, M. Dahlgren, G and Evans, T. (2001), Equity and health sector reform: Can low income countries escape the medical poverty trap? *Lancet*, 358, 833-836.

WHO. (2001), Report of the scientific peer review qroup on health systems performance assessment, [http://www.who.int/health-systems-performance/sprg/report-of-sprg-on-hspa.htm], site visited on 08/08/2012.

WHO. (2010), Health Services, [http://www.who.int/topics/health_services/en/], site visited on 22/01/2011.

WHO. (2012), Health systems, [www.who.int/healthsystems/topics/delivery/en/index.htm], site visited on 14/04/2012.

Wuensch, K. L. (2008), Binary logistic regression with Statistical Package for Social Science, [http://core.edu.edu/pspc/wuenschk/spss/spss-mv.htm], site visited on 14/2/2009.