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DOES PREVENTIVE HEALTH CARE HAVE A CHANCE IN THE CHANGING HEALTH SECTOR IN TANZANIA?

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### ABSTRACT

**Objective:** To investigate the status and practice of preventive health care (relative to curative) in the health delivery system at the time when the health sector reforms are taking place.

**Design:** A cross-sectional, descriptive study.

**Setting:** The study was conducted in Morogoro District between January and May 1999.

**Subjects:** Eighty six medical personnel and two hospital administrators from thirty four health facilities. The health facilities included twenty five dispensaries, five health centres and four hospitals. Care was also taken to include health facilities owned by various institutions and organisations, including governmental and Non-governmental.

**Results:** Generally, preventive health received little attention compared to the curative health measures whereby more than 80% of the medical personnel in some of the facilities were assigned to curative services. Health personnel reported to spend an average of up to six hours per day providing curative services such as chemotherapy, surgical treatment, psychotherapy and radiography. On the contrary, they spent about four hours or less on providing child immunisation and education on nutrition, health and family planning. As expected, the type of ownership of a health facility influenced the extent to which preventive measures were included. For example, while all the government owned facilities did provide child immunisation, nutrition education and family planning services, some non-governmental facilities were lacking such services.

**Conclusion:** It is obvious that while the provision of curative health care can be left to the hands of the private suppliers, that of preventive health care needs strong government involvement. It is suggested that deliberate efforts be taken to shift resources from curative to preventive measures. One way in which such a strategy can be attained is for the government to set, as a condition for private operators, a minimum level of preventive measures to be provided by every operator before a permit is issued. However, caution should be taken to ensure that such deliberations do not discourage investors in the health sector.

### INTRODUCTION

In order to promote efforts to improve health in developing countries, the World Bank has recently recommended a three-pronged approach to government policies (1). Firstly, governments need to foster an economic environment that enables households to improve their health. In that respect, economic growth policies that ensure income gains for the poor are essential. So too, is expanded investment in schooling particularly for girls. Secondly, governments' spending on health should be re-directed to more cost-effective programmes that do more to help the poor. The Bank

observed that too much of government spending on health goes to specialised care in tertiary facilities that provide limited returns for the money spent. Too little goes to low cost, highly effective programmes such as control and treatment of infectious diseases and malnutrition. The Bank also noted that developing countries, as a group, could reduce their burden of disease by 25% by re-directing efforts and resources to public health programmes and essential clinical services. About half, on average of the government spending now goes to services of low cost-effectiveness. Thirdly, governments need to promote greater diversity and competition in the financing and delivery of health

services. Essentially, this entails more involvement of private sector in service supply while at the same time putting more efforts on generating and disseminating key information, to increase the efficiency of the sector.

While the developing countries are increasingly embarking on implementing the recommended measures, it is unfortunate that insufficient research has been conducted to establish and understand the path and mechanisms of expected improvement. The understanding is necessary in order to avoid, or minimise, negative externalities that are likely to result in the process of implementing the policy. Since the late 1980s, Tanzania has opened up to allow for greater diversity and competition in financing and delivery of health services whereby the private sector, which was uncommon in the country, is now more involved. This study intends to establish the status of the preventive health care in Tanzania at the time when such reforms are being implemented in the country.

To guide the study, it was hypothesised that because preventive health measures do not generate sufficient incentives to the suppliers of the health services, such services are likely to get less attention in the present health delivery system. The incentives involved include business profits for the private suppliers and career recognition by the medical practitioners. This is in comparison with the curative measures of health.

#### MATERIALS AND METHODS

*Study area:* This study was conducted in Morogoro district between January and May 1999. Thirty four health facilities, out of 147 that were operating in the district at the time (Table 1), were selected using purposive sampling technique. Care was taken to include all types of health facilities available in the area.

The selected facilities included 25 dispensaries, five health centres and four hospitals. Seven dispensaries were

urban i.e. situated in the Morogoro municipal area while the remaining 18 were from rural areas of the district. The five health centres included in the study, namely, Ahmadiya, Mount Rungwe, Saba Saba and Shaloum were situated in Morogoro municipal area, while Mlali Health Centre was from the rural area. On the other hand, Morogoro Regional Hospital together with Huruma and Morovian hospitals were in Morogoro town. Only one hospital was from the rural part of the district (Turiani Hospital). Type of ownership of the facilities was also taken into consideration in selecting the health facilities under this study. Governmental and non-governmental owned facilities were included. Of the 25 dispensaries, the government owned 13 while 12 were non-governmental. Out of the five health centres, two were government owned. The government also owned one of the four hospitals.

*Subjects and data collection:* Cross-sectional design was used to collect data. Information was sought through interviewing two main groups of personnel: (i) The management and (ii) medical technical staff of the selected health facilities. Medical-in-charges or hospital administrators represented the management segment while the medical personnel, who were on duty on the day of interview, represented the other group. Structured checklists were the tools used to collect information from the management personnel while self-administered questionnaires were deployed for the technical staff. A total of 86 health professionals were interviewed in this study. The professionals included five physicians, one surgeon, ten medical assistants, 51 nurses or midwives, 15 rural medical aids, two hospital administrators and two dental orderlies.

The management personnel provided information on the extent to which their staff members were assigned to either preventive or curative health services. Using a specially designed guide, the management personnel were also asked to indicate the type of preventive and curative services available at their facilities. On the other hand, individual health personnel reported on the amount of time they spent on the various types of services, both preventive and curative.

**Table 1**

*Distribution of the available and operating health facilities in Morogoro District*

Type of facility and location	Total no.	Type of ownership		
		Government	Semi private	Private
Dispensaries				
Rural	88 (18)	55 (11)	25 (5)	8 (2)
Urban	34 (7)	11 (2)	8 (2)	15 (3)
Health Centres				
Rural	7 (1)	6 (1)	1 (0)	0
Urban	11 (4)	3 (1)	6 (1)	2 (2)
Hospitals				
Rural	3 (1)	1 (0)	2 (1)	0
Urban	4 (3)	2 (1)	1 (1)	1 (1)
<b>Total</b>	<b>147 (34)</b>	<b>78 (16)</b>	<b>43 (10)</b>	<b>26 (8)</b>

NB: (Figures in brackets indicate the respective number of facilities that were sampled and surveyed for this study)

*Pre-testing of the data collection instruments:* The pre-testing of the checklist tools and questionnaires was done at the Sokoine University of Agriculture (SUA) dispensary. Necessary adjustments were made before the two instruments were employed to collect data.

*Distinction between preventive and curative health services:* Preventive health services included child immunisation, chemoprophylaxis, dental care, family planning services and provision of health and nutrition education. Curative health services included chemotherapy, psychotherapy, physiotherapy, surgical treatment and radiography.

*Data analysis:* Collected data were coded into SPSS computer statistical programme for analysis. Descriptive statistics, namely percentages and means, were computed to show the extent to which various categories of health services, considered as preventive or curative, were included in the health facilities, and the extent to which health personnel were assigned to each of these activities.

## RESULTS

*Involvement of the health personnel in preventive and curative services:* Table 2 provides a summary of the reported involvement of health personnel in the curative and preventive health services as reflected by the extent to which they were assigned. Except for few dispensaries, namely Mkuyuni, Doma, Mikese Government dispensary, Mvomero and Mvuha, larger proportions of the personnel were assigned in curative health services than in preventive care. For example, all the health staff of the Maskati missionary, Highway and Kiwanja cha Ndege dispensaries were offering curative services. Similarly, up to 80% of the health personnel in all the Health Centres (except for Shaloum and Saba Saba) were involved in curative services. The prominence of the curative services among the surveyed health personnel is also shown in the studied hospitals.

**Table 2**

*The extent to which health personnel were assigned to the activities typically considered as preventive or curative*

Name of health establishment	Type of ownership	Curative		Preventive	
		No. of staff assigned	% of all staff	No. of staff assigned	% of all staff
<i>Dispensaries</i>					
Maji	Government	7	53	5	47
Kiroka	Government	4	66	2	34
Wami-Dakawa	Government	3	60	2	40
Mkuyuni	Government	3	43	4	57
Doma	Government	5	45	6	55
Hembeti	Government	7	54	6	46
Mikese Govt. Dispensary	Government	4	44	5	56
Mkindo	Government	5	50	5	50
Mlali	Government	4	57	3	43
Mvomero	Government	6	43	9	57
Tangeni	Government	6	60	4	40
Mvuha	Government	4	44	5	56
Mafiga	Government	7	54	6	46
Maskati Missionary	Semi-Private	6	100	0	0
Matombo Missionary	Semi-Private	6	75	2	25
Mvuha Missionary	Semi-Private	7	70	3	30
Mkata Ranch	Semi-Private	4	67	2	33
Pangawe Sisal Estate	Semi-Private	6	60	4	40
Kilakala Sisters	Semi-Private	5	71	2	29
Aga Khan	Semi-Private	18	81	4	19
Kidugalo Dispensary	Private	4	80	1	20
Mikese Dispensary	Private	6	75	2	25
Highway	Private	8	100	0	0
Neema	Private	5	63	3	38
Kiwanja cha Ndege	Private	6	100	0	0
<i>Total</i>		146	63.2	85	36.8
<i>Health Centres</i>					
Saba Saba	Government	36	64	20	36
Mlali	Government	5	83	1	17
Ahmadiya	Semi-Private	12	80	3	20
Shaloum	Private	8	66	4	34
Mount Rungwe	Private	10	83	2	17
<i>Total</i>		71	70.3	30	29.7
<i>Hospitals</i>					
Morogoro Regional Hospital	Government	317	61	200	39
Morovian	Semi-Private	11	69	5	31
Turiani	Semi-Private	55	58	39	42
Huruma	Private	8	57	6	43
<i>Total</i>		391	61	250	39

*Availability of the preventive and curative services:* Table 3 presents a summary of the availability of curative and preventive health services among the surveyed health facilities. Both curative as well as preventive health services were undertaken in all categories of the health facilities included in the study. The most practiced curative services were chemotherapy and psychotherapy, which were practiced in all the surveyed health facilities. As expected, none of the surveyed dispensaries was offering radiography services.

**Table 3**

*The reported availability of the curative and preventive health measures among the various health facilities surveyed*

Type of measure	Type of Health facilities		
	Dispensaries % (n=25)	Health Centres % (n=5)	Hospitals % (n=4)
<b>Curative services</b>			
Chemotherapy	100	100	100
Psychotherapy	100	100	100
Physiotherapy	40	80	100
Surgical treatment	52	100	100
Radiography	0	40	75
<b>Preventive services</b>			
Child immunisation	80	100	100
Chemoprophylaxis	52	60	75
Nutrition education	72	80	60
Education on good health	80	80	75
Family planning education	60	75	75
Dental Care	40	75	50

Further analysis of three main preventive health care activities (children immunisation, nutrition education and family planning services), revealed an interesting trend (Table 4). While all the government owned health facilities were providing all the three selected health preventive measures, some semi-privately owned facilities were almost lacking family planning services. However, the semi-private facilities, which included religious or missionary affiliated health facilities, performed well with regard to child immunisation and nutrition education.

*Time allocated for curative and preventive activities by the interviewed health personnel:* Table 5 presents a summary of the reported allocation of time in various activities considered as preventive or curative services. Activities that have been highly favoured, in terms of the mean number of hours per day per personnel, were surgical treatment, chemotherapy, psychotherapy and radiography. The four activities were all related to curative measures. Except for child immunisation, all the other typical preventive measures did not feature well.

**Table 4**

*Distribution of three selected main preventive-health measures according to the mode of ownership of the health facilities.*

Type of preventive measure	Mode of ownership		
	Government %(n=16)	Private %(n=8)	Semi-private %(n=10)
Child immunisation	100	75	100
Nutrition education	100	75	100
Family Planning services	100	50	20

**Table 5**

*Average of the reported mean hours per day spent by the surveyed health personnel in various activities related to preventive or curative health measures*

Type of health service	Average of reported mean hours per day
<b>Preventive services</b>	
Child immunisation (n=40)	4.35
Chemoprophylaxis (n=40)	1.38
Nutrition education (n=40)	3.62
Education on good health (n=40)	2.20
Education on Family Planning (n=40)	3.46
<b>Curative services</b>	
Chemotherapy (n=40)	6.20
Psychotherapy (n=20)	5.16
Radiography (n=4)	5.50
Physiotherapy (n=10)	2.40
Surgical treatment (n=12)	6.42

In summary, the findings from this study do imply that there was a general tendency for preventive health measures to receive little attention compared with the curative measures. Service provision efforts, including time spent by health personnel, was more devoted to curative than to preventive measures. Some of the key preventive services such as education on nutrition and family planning were not provided in some of the health facilities surveyed.

## DISCUSSION

Although the observed tendency to favour curative services in a health delivery system undergoing reforms is not encouraging, it is not surprising. When the suppliers of services, either public or private, intend to recover their costs as much as possible and even maximise profits, preventive measures are less attractive for such intentions. In prioritising health services according to their suitability for cost-recovery purposes, it has been shown that programmes on disease prevention and control such as vector control and prophylaxis among populations, immunisation, monitoring of

outbreaks of communicable diseases, as well as environmental sanitation and educational promotions were the least suitable (1-3). Others included maternal-child health services, family planning and rural water supply. On the other hand, outpatients services, mostly consultations for out patients, inpatient services (bed and nursing, delivery, surgery, etc), drugs sales and urban water supply, were reported to be the most suitable.

While the economic forces play great influence in determining the shape and type of a health system that can be sustained, it is also necessary for the policy makers to bear in mind the cost-effectiveness and equity of the services provided. Studies have demonstrated that health interventions do differ in their cost-effectiveness (1,4-6). For example, using the number of disability-adjusted life years (DALYs), it has been demonstrated that a large number of clinical interventions commonly subsidised by governments in developing countries were very expensive ways of improving health, costing over US\$ 1000 per DALY gained(1). Such interventions included medical treatment for hypertension and many other activities offered by tertiary care institutions. On the other hand, many interventions that are not fully funded were very efficient ways of improving health, producing benefits at less than US \$ 25 per DALY. Among these were a large number of interventions aimed at parasitic diseases control including mass anti-helminthic treatment targeted at school children, vaccinations, short-course treatment for tuberculosis and multi-drug therapy for leprosy. There is evidence to suggest that impregnating bed-nets with insecticide is a very efficient use of scarce health resources for malaria control(5).

Economists argue that markets should be left to work efficiently and governments should intervene where markets fail to work adequately(7). While many types of market failure do exist in the health sector to justify government intervention, perhaps the strongest argument for government involvement concerns equity and poverty alleviation. Even where markets work efficiently, they do so for a given income distribution. In virtually all societies, governments recognise that a proportion of the population cannot afford to purchase a minimum acceptable level of care and a legitimate role for government is to ensure access for this group. Because infectious and other preventable diseases still account for a high proportion of ill health among the poorest, access to a minimum package of services for these people would require access to forms of

preventive health services. Such a measure would certainly improve the welfare of the poor and hence provide them with more of the human capital required for a long-term escape from poverty.

## RECOMMENDATIONS

It is obvious that while the provision of curative health services can, to a large extent, be left to the hands of the private suppliers, provision of preventive health services needs strong government involvement. While the government strives to foster and encourage growth of the private sector in the delivery of health services, deliberate efforts should be made to shift resources from curative to preventive measures. One way of doing this is for the government to set, as a condition for private operators, a minimum level of preventive measures to be provided by every operator before a permit is issued. However, caution should be taken to ensure that such deliberations do not discourage investors in the sector. More research is needed to find out how such private-public partnerships can be implemented without causing conflicts.

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