

# DETERMINANTS OF COMMUNITY HEALTH AGENT FUNCTIONALITY IN ARSI REGION

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**ABSTRACT:** A comparative case-control study to assess the determinants of Community Health Agent (CHA) functionality was done in two Arsi districts, in mid-southern Ethiopia. This was a census study which was conducted by interviewing 347 CHAs from a structured questionnaire. The objectives were to describe the situation of the CHAs trained up to the end of 1987, and to elucidate determinants of CHA functionality by comparing the attributes of functional CHAs (cases) with that of the nonfunctional ones (controls). The findings revealed that only 25.8% of the CHAs interviewed were performing 50% or more of the activities mentioned in their job description. It also revealed a point prevalence attrition rate of 45%. Comparing cases and controls showed a strong association between functionality and community support for the CHAs (RR = 72.4 with 95% CI 35 - 153). Association was also found between functionality and supervision by health institutions, presence of health posts, provision of stationary drugs and to the CHA, and establishment of an active health committee. These findings emphasize the importance of provision of proper community and health system support for the success of the community health services program.

## INTRODUCTION

The concept of health auxiliaries such as community health workers (CHW), has been around for about 40 years, and has been attempted in many different countries (1). The concept of CHWs who are generally local inhabitants given a limited amount of training to provide basic health needs, such as promoting preventive activities and giving simple curative services, relevant to their specific area has received emphasis with the emergence of the PHC concept (2,3,4). CHWs are expected to remain in their home villages or neighbourhood as part time workers. They may be volunteers, or may receive salary or other forms of remuneration from the community.

Despite widespread experience in the training and use of CHWs worldwide, little evaluative research has been done. Although the works published have demonstrated a higher service coverage achieved by CHWs than the previous health care delivery systems, and higher rates of utilization by the poorer section of the population, many weaknesses have also been evident. Many of the weaknesses and seeming failures of the CHW programmes arise from a lack of community support and failure to provide backup from the health services.

Ethiopia, being one of the countries that signed the Alma-ata charter, has almost a decade of experience in training and use of CHWs, both in the form of community health agents (CHAs) and traditional birth attendants (TBAs) (5). Up to the end of 1988, 13,085 CHAs and 11,762 TBAs had been trained and returned to their respective communities (personal communication, MOH, Division for Health Stations & Community Health Services).

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It has been repeatedly mentioned that the community health service (CHS) programme in Ethiopia is having problems partly due to the lack of remuneration of the trained CHWs, and it has been seen that more than 75% are not functional (6,7). Despite this fact, the training of CHAs and TBAs is still continuing. The purpose of the present study is to assess the determinants of functionality of CHAs who had

been trained up to the end of 1987 in the study area. This is done by comparing the functional CHAs with the non functional ones.

## **METHODS**

The study is a cross sectional census survey with a case-control analysis, with functional CHAs as cases and non-functional CHAs as controls. After interviewing all CHAs in two districts of Arsi region, functionality score was determined by comparing the activities of the CHA with the items in the job description published by the Ministry of Health of Ethiopia. The functionality score was then graded from 0 to 20 points. Those who were performing 50% or more of the job description were classified as functional, and the remainder were classified as non-functional. The possible determinants of functionality, such as community support, selection by the community, and support by the local health institution were inquired about on the same questionnaire. An attempt was made to verify the responses of the CHA by interviewing the community leaders and local health workers and comparing the responses. Before the interview took place, informed consent was obtained, and all respondents were assured of confidentiality.

The questionnaires were coded and data was entered on an SPSS/PC program for analysis.

## **RESULTS**

Out of a total of 582 CHAs trained up to the end of 1987, a total of 347 were able to be interviewed. Of these 347 CHAs, 159 were not performing any activity at the time of the interview, making an attrition rate of 45.8%. 99 CHAs or 28.6% were performing less than 50% of the activities required in the job description, and 89 CHAs or 25.6% were found to perform 50% or more of the activities mentioned in the job description (Fig.1).

Table 1 shows attributes of the functional CHAs compared with the non-functional ones.

The odds ratio of the most important associations are seen in table 2.

Of the community leaders who responded that they gave no support in cash or in kind, the reasons given for not supporting were:

- 56.9% expected the CHA to be supported by the government.
- 27.7% were not aware that the CHA needs to be supported.
- 12.4% had no capacity to support the CHA.

Only 20.3% of the clinic staff who responded to the interview participated in the selection of the particular CHA. 6.3% of the clinic staff responded as having no awareness as to the presence of a CHA in the particular sub-districts, only 14% of the clinic staff gave regular supervision, and 15.2% claimed to have given the CHA drugs at least once in the past.

The reasons given by the clinic staff for not supervising the CHAs were:

- 21.4% felt that there was no point in supervising CHS who are not supported by their community.
- 26.4% felt that it was not worth supervising the CHAs, because the CHAs were not interested in being supervised.
- 52.2% ascribed their inability to lack of budget.

## **DISCUSSION**

In this study it is shown that the proportion of functional CHAs is about 26% in the two Arsi districts, with 45% being completely inactive. The study also has revealed that CHA functionality is associated with remuneration by the community, and health institution supervision (RR = 72.4 and 28 respectively).

The problem of maintaining the activities of CHWs is encountered in many countries and projects which have trained them (8,9,10). The reasons given for high attrition rates of CHWs is that the community and health system give

Table 1. Characteristics of functional and non-functional CHAs.

Comparison variable	Cases		Cases	
	Freq.	(%)	Freq.	(%)
Age				
<27 years	39	(43.8)	133	(51.5)
>27 years	50	(56.2)	125	(48.5)
Marital status				
single	18	(20.2)	34	(13.2)
married	71	(79.8)	224	(86.8)
Size of household				
1-3	24	(27.0)	96	(37.2)
4-5	34	(38.2)	83	(32.2)
≥6	31	(34.8)	79	(30.6)
Educational status**				
≤ grade 6	40	(44.9)	127	(49.2)
> grade 6	49	(55.1)	131	(50.8)
Selection**				
by community	78	(87.6)	137	(53.1)
by leaders only	11	(12.4)	121	(46.9)
Place of training				
nearby health center	75	(84.3)	206	(79.8)
Agarfa	14	15.7)	52	(20.2)
Presence of health committee**				
none functioning	36	(40.4)	239	(92.6)
functioning	53	(59.6)	19	(7.4)
Place of CHA in the committee**				
no place	5	(5.7)	30	(24.2)
only a member	1	(1.1)	23	(18.3)
as an executive	80	(93.2)	69	(57.5)
Community support**				
no	12	(13.5)	237	(91.9)
yes	77	(86.5)	21	(8.1)
Supervision from HI**				
no	17	(19.1)	224	(86.8)
yes	72	(80.9)	34	(13.2)
Refresher course**				
no	28	(31.5)	199	(77.1)
yes	61	(68.5)	59	(22.9)
Presence of health drugs**				
no	65	(72.7)	250	(97.0)
yes	24	(27.3)	8	(3.0)
Presence of health post**				
no	52	(58.0)	246	(95.4)
yes	37	(42.0)	12	(4.6)
Presence of registration book**				
no	23	(25.8)	204	(79.0)
yes	36	(74.2)	54	(21.0)

\* (p<.05)

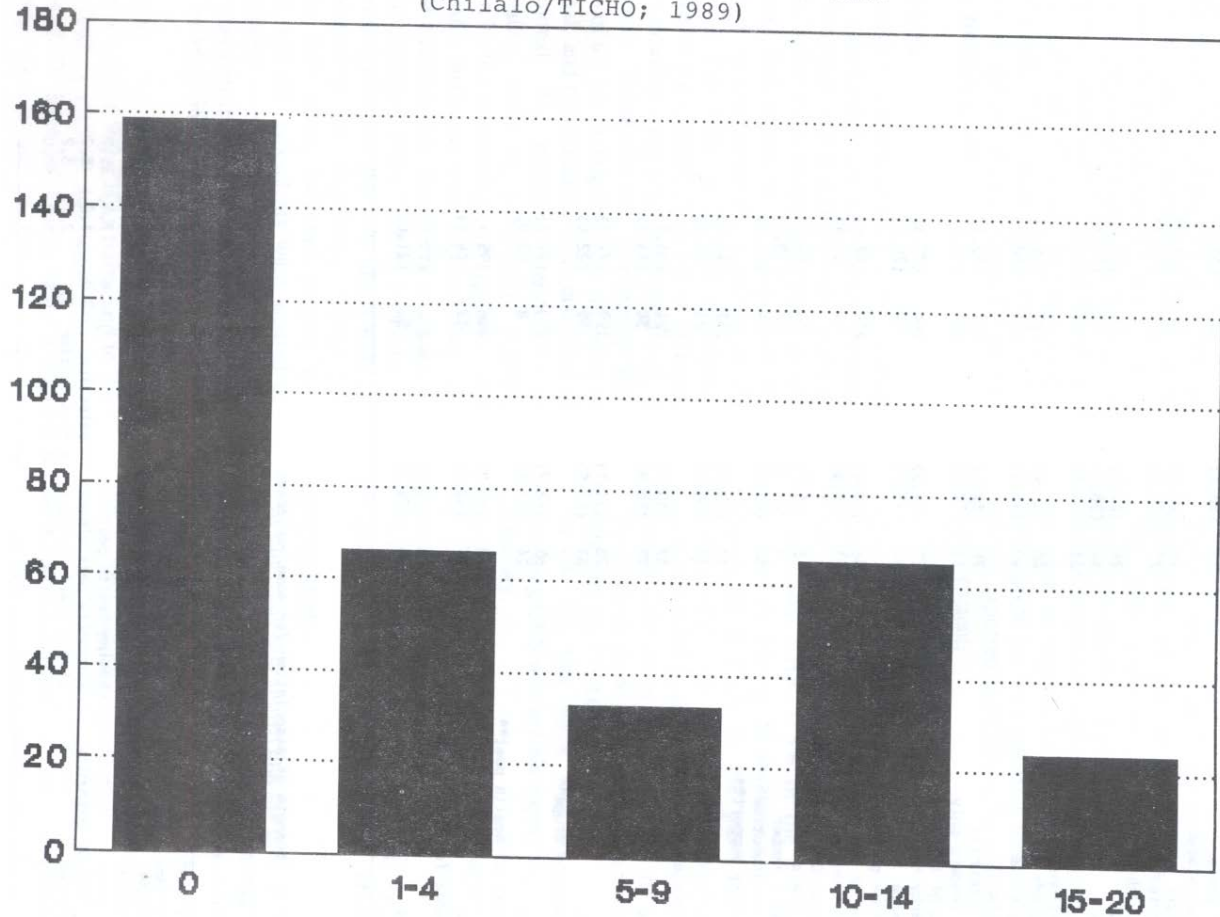
\*\* (p<.01)

Table 2. Strength of association for some variables

Odds of being.....	When.....	Ratio	95%	C.I.
functional	supported by community	72.4	34.0	153.0
functional	supervised by clinics	28.0	14.6	53.4
functional	getting refresher course	7.3	4.5	12.2
functional	having drugs	11.5	4.9	27.0
functional	having health post	14.6	7.1	35.7
supported by community	community participants in selection	3.0	1.2	8.2

supervised	clinic staff participants in selection	3.1	2.7	8.2
supervised	situated within 5kms of clinic	5.3	3.0	10.0

FUNCTIONALITY SCORE OF INTERVIEWED CHA.  
(Chilalo/TICHO; 1989)



Functionality score

inadequate support for them. The reasons why there is inadequate community and health system support for CHWs range from inappropriate selection of CHWs to the lack of proper structure to evaluate their training programs (11,12).

That community support is vital to the function of CHAs is an established fact and has been shown in studies from China, Kenya, Zambia, India and Ethiopia (13). In the present study, community support for remunerating CHAs (in cash or in kind) is shown to be strongly associated with function (OR = 72 [95% CI = 34, 153]). Besides remuneration in cash or in kind, community support may also be in the form of providing logistics like health posts, drugs and stationary and establishing an active health committee. Having drugs has been seen to be effective in CHW programs in Somalia, Kenya and Peru both as an incentive and in increasing the respect for the CHWs (14,15). The successes of CHW projects in Kenya and Nigeria were also ascribed to the presence of active health committees (16).

The other major finding of this study is that health institution support to CHWs is vital both in the form of supervision (OR = 28 [95% CI= 14.6, 53.4]) or continuing education (OR = 7.3, [95% CI = 4.5, 12.2]). This fact was also shown in earlier studies in Ethiopia and Canada (17,18).

It should be remembered, that as a cross sectional study, this study can only show association, rather than cause and effect. It is possible that it is the CHA's functionality that stimulates community and health institution support. However, we believe it is likely that it is the support which determines functionality. For example, community participation in selection of the CHA is strongly associated with functionality. Clearly, selection comes before functionality in time. The same is true to a lesser extent of health institution involvement in the CHA's selection.

On the basis of this study it is recommended that communities be made aware of the benefit of CHAs and try to support them. Health institutions should also be enabled to give support to CHAs. CHAs should be provided with essential drugs. Health posts and active health committees should be established at every sub-district. It is hoped that this will help accelerate the progress towards the goal of "Health for All by the year 2000".

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