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A study on implementation of national programme for prevention and control of cancer, diabetes, cardiovascular diseases and stroke in Udupi district, Karnataka

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ABSTRACT

Background: In India National programme for prevention and control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) programme was launched in 2011 to reduce the burden of Non-Communicable diseases (NCDs). Udupi district was one of the first few districts of Karnataka where NPCDCS programme was started in the year 2010.

Methods: A qualitative cross-sectional study was conducted among the stakeholders involved in the NPCDCS programme of Udupi District, Karnataka from January 2017- June 2017. Purposive sampling method was used for the sample selection. A total of 36 in-depth interviews were carried out among the stakeholders of NPCDCS programme. **Results:** The programme has achieved initial success and its successful implementation has to be observed in the coming years. Health staff posts which are critical in implementation of NPCDCS are vacant in many of the

healthcare centres. Awareness about this programme was relatively low in the community. **Conclusions:** It is necessary to conduct regular awareness and screening campaigns with proper follow-up services to make the community sensitized about the programme. Regular supply of medicines should be ensured for the effective implementation of the programme in the future so that it can achieve its goal in reducing the burden NCDs.

Keywords: Implementation, NPCDCS, NCDs, Udupi

INTRODUCTION

Non-communicable diseases (NCDs) have emerged as one of the most important public health threat in the developing countries. According to World Health organization (WHO) NCDs are broadly classified as cardiovascular diseases, chronic respiratory disease, diabetes and cancers of which the major risk factors are physical inactivity, unhealthy diet, tobacco use and excessive use of the alcohol. 3

NCDs are responsible for the total 82% of the entire disease burden of the world. 38 million people die from the NCDs each year out of which 28 million deaths occurs in low and middle-income countries.⁴ The mortality due to NCDs have increased significantly from 8.6 million to 10.9 million in South East Asia Region.^{5,6}

There is a rapid transitions from communicable disease to NCDs in India from last decade and half. NCDs accounts for 62% of total disease burden and 42% all deaths in India. 4 Cardiovascular diseases have highest mortality

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and morbidity rates followed by chronic respiratory diseases, cancer, and diabetes. Millions of people have died prematurely by various NCDs due to inaccessibility to good health care services, unaffordable higher cost of medicines which is seriously hampering the social and economic development of families, community, nation and the world. For the rising burden of NCDs, The Ministry of Health and Family Welfare, Government of India launched the integrated "National programme prevention and control cardiovascular diseases, Diabetes, cancer, and stroke (NPCDCS") in July 2010. NPCDCS functions in integration with the primary health care system through NCD cells at the district and peripheral levels to provide optimal operational synergies.

During 11th five year plan period, 100 identified districts in 21 states have been selected and covered under the program. Udupi district was one of the first few districts of Karnataka where NPCDCS programme was implemented in the second phase (in the year 2010-12). The NCD clinics in (Community Health centre) CHCs and general hospitals started functioning from 2016 and most of the staff employed in these clinics were recruited in 2016. ¹⁰

The final outcome of this programme will depend on how effectively it is evaluated, monitored and further improvised. It's almost five years now that the programme is running and therefore it is necessary to find out the obstacles in the implementation programme.¹¹

The present study aimed to assess the implementation of NPCDCS programme in Udupi district. The objectives of the study were to explore the implementation of NPCDCS programme and to determine the barriers in the implementation of NPCDCS program from the stakeholder's perspective.

METHODS

This was a qualitative cross sectional study conducted among the stakeholders involved in the implementation of NPCDCS programme. Udupi district has one District Hospital, two general hospitals at block levels, six CHCs, 67 primary health centres (PHCs) and 327 sub-centres. The study period was from January 2017 to June 2017. The subjects included under study were healthcare providers who work under NPCDCS programme (District NCD Cell, District NCD Clinic, CHC NCD clinic, Subcentre). The study subjects from different healthcare level are explained in Table 1. Purposive sampling method was used for the respondent recruitment. An in-depth interview guide with open-ended questionnaire was used for qualitative data collection and interviews were tape recorded after taking a written informed consent from the participants. Interviews were conducted till information saturation was achieved. A total of 36 subjects were interviewed from different levels of healthcare facilities. After the approval of the study from the institutional ethical committee, administrative permission to conduct the study was obtained from District health officer (DHO).

Table 1: Different stakeholders under the study.

| District NCD cell | District NCD clinic | CHC NCD clinic | Sub-centre under CHC |
|---|---|---|---|
| 1.District programme officer 2.Districtprogramme coordinator 3.Data entry operator 4.Finance cum logistic officer | 1.NCD Medical Officer 2.Counsellor 3.Lab technician 4.Staff Nurse 5.Physiotherapist | 1.NCD Medical Officer 2.Lab technician | 1.ANM worker 2.Male health worker 3.ASHA worker |

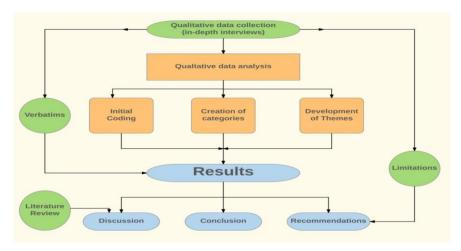


Figure 1: Study design.

Using data transcripts, heterogeneous thematic analysis was done with the help of coding and categories for

different healthcare settings. Analyzed result was used to assess the implementation process and barriers to the

implementation of NPCDCS programme from the stakeholder's perspective utilizing the pre-designed openended questionnaire. The procedure has been explained in Figure 1.

RESULTS

The study assessed the implementation of NPCDCS programme in Udupi district. The stakeholders involved in the implementation of NPCDCS programme right from the grass root level to district level were interviewed using in-depth interview guide with open-ended questionnaire.

Implementation process

There is a separate NCD clinic in each of the CHC, Taluka general hospital and district hospitals, and it consists of a Medical officer, staff nurse, counsellor, lab technician and one data entry operator. At the district level District surveillance officer (DSO) is the head of the programme, and presides over the overall implementation of the programme. Due to man power and funding constraints the programme is not implemented at the PHC level

District NCD Cell supplies all the essential medicines and equipment to NCD clinics. In Udupi under the NPCDCS program data pertaining to diseases is collected from different health centres and managed by the data entry operator who segregates and analyse the data according to age and other demographic factors.

"At CHC, it is less than one year i.e. near about 6 months; I think one year is not completed yet. It has been started since 2012 in Udupi and sub-centre level". (Respondent "Health care provider"-5)

"It is only at the CHC level and at Taluka hospital and district hospital. And one more program is added is care for the elderly is added with it but it is not considering so here it is started in last year I came here in January and 1 Staff nurse also recruited 1 lab technician and myself staff nurse Counsellor is there And data entry operator that is also there but we are not working vertically we are we are with CHC use regular CHC medical staff, field staff nurses" (Respondent Medical officer-1)

Activities under implementation of NPCDCS

Training program is conducted at the district headquarters for medical officers and other NCD staffs. Auxiliary nurse midwifes (ANMs) and Accredited social health activists (ASHAS) workers are trained at CHCs by the medical officer. Majority of the respondents pointed out that the training mainly focuses on the diagnosis of diseases by identifying the signs and symptoms of the diseases.

Diabetes and Hypertension are the two main diseases which are screened by the health workers at the sub-

centre levels. Opportunistic screening is done at the PHC and sub-centre level by the ASHA and ANM workers (junior health assistant female). All people above the age of 30 years are screened for diabetes, hypertension, cardiovascular disease and cancer. At sub-centre level, IEC activities are carried out by ASHAs and ANM workers. (Information, education and communication) IEC materials were found displayed in every health care centres.

"In the beginning we had undergone one training given by district authorities other than that we haven't got any training so far". (Respondent "Health worker"-1)

"First we screen for sugar levels after food, if the sugar level comes above 140mg/dl we will refer the patient, Referred patient is checked for fasting glucose level, if FBS level is above 100mg/dl advised for diabetic diet, again after sometimes we will repeat the test if the sugar levels are increased then we will advise medicine first we screen for sugar levels after food, if the sugar level comes above 140mg/dl we will refer the patient" (Respondent "Health worker"-6)

Barriers in the implementation process

Some barriers in the implementation of the programme was observed while interviewing the stakeholders involved in NPCDCS programme. At CHC there is separate NCD team, who work only for non-communicable diseases, however many healthcare providers at sub-centre said that they have been burdened by activities of many national health programmes and so can't give adequate time for NPCDCS programme activities.

Many of interviewee pointed towards the low awareness regarding the NPCDCS programme, in the community since the community members don't accept the treatment provided in the government health facilities. Common public perception is that medicines which are provided in the government setup are of low-quality. Some of the respondents also explained about the conditions which act against the successful implementation of the programme. Community perception plays a major role and a lot of unauthorised practitioners try to dissuade people from visiting government health facilities. These include quacks, faith healers, alternative medicine practitioners and local leaders. The diseases under this programme are chronic diseases and need regular followup and consultations. Most of the people are not aware of these diseases and their nature. They never visit hospitals, assuming that the disease will cure itself.

Most of the respondents said the budget is a major issue in implementation. The budget is inadequate, and funds are not released on time. This halts the execution and progress of all activities. Medicines and all other essential equipment and lab reagents are to be purchased from these budgets, which can't be procured in a timely fashion due to the delay.

DISCUSSION

This study was conducted to assess the implementation of NPCDCS programme in Udupi district. Thirty-six indepth interviews were conducted with different health sector levels. Study results have shown that the most crucial missing link in the implementation of the programme is the unavailability of medical officers and other staffs. Many posts are vacant, and even in centres where MOs are present, they are temporary or contractual recruitments. Many of the respondents pointed out that the training programme under the NPCDCS needs to be more robust and practical. Most of the respondents from different healthcare sectors suggested for the number screening and awareness camps to be conducted at different healthcare facilities. There are some conditions which act as barriers in the smooth implementation of the programme. Community perception plays a major role and a lot of unauthorized practitioners try to dissuade people from visiting government health facilities. Most of the people are not aware of NCDs and their nature. They never visit hospitals, assuming that the disease will cure

The findings of the study showed that private institutions involvement on public partnership mode will lead to increase knowledge and awareness and more people will participate in the programme activities. A study done in Udupi district in 2016 by Bhattacharya et al said that more prominence must be given on better integration of NPCDCS program with public health facilities, which will improve the health care utilization in government health facilities. 12 Camps with specialists may be conducted with the support of external institutions or organizations. There is need for smooth and effective hassle free functioning of the NPCDCS programme to counter the rising epidemic of non-communicable disease the NPCDCS programme. Vacant post is one major barriers identified in the implementation of NPCDCS programme. Regular awareness programs should be conducted particularly in rural areas. The overall awareness about the programme was low in the community inspite of the IEC activities. There is a need for constant monitoring and evaluation of the programme to identify the gaps and subsequent actions for further improvisation.

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