A Study on Social Cost Benefit Analysis related to Non Communicable Diseases for Government Health Schemes, with reference to Gandhinagar District of Gujarat State

1. Introduction:

Social cost Benefit Analysis known as economic analysis is a methodology developed for the evaluation of investment projects according to the society or economy as a whole. Social cost Benefit Analysis has received a lot of emphasis because of increasing significance of public investments in many countries, particularly, in second world countries. Social cost Benefit Analysis is also relevant to some extent, to private investments as these have now to be approved by various governmental and quasi-governmental agencies which bring to bear larger national consideration in their decisions. In the context of planned economics Social cost Benefit Analysis helps in evaluating individual projects within the planning framework which spells out national economic objectives and broad allocation of resources to different sectors. The perspectives and parameters provided by the macro level plans serve as the basis of Social cost Benefit Analysis which is a tool for analyzing individual projects. Michal Drummond says, “It is the best to think of the cost - benefit approach as a way of organizing through rather than as a substitute for it”. Cost benefit analysis is the implicit or explicit assessment of the benefit, advantages and disadvantages linked with a particular choice. Benefit and costs may be pecuniary or non-monetary. Mainly, Non Communicable Diseases like cardio vascular (17 million deaths), Cancer (21% NCD deaths) respiratory like asthma (42 million) and diabetes (1.3 million deaths) are responsible for 36 million death from 57 million global deaths in 2008. In low and middle income countries around 80% of NCD deaths were noticed, where 29% NCDs deaths occur among people of age less than 60 as compared to 13% in high income countries according to Global status report on NCD 2010. NCD would be the reason for roundabout 44 million deaths all around the world in 2020. Based on WHO (world Health Organization- NCD country profiles, 2011) the calculated deaths because of NCDs were 5.3million in 2008. Also according to Indian Council for medical Research, 2006 3.7,1.54,62.47 & 159.46 is complete prevalence of Ischemic heart Disease(IHD) of stroke, diabetes and hypertension in order per 1000 people in India. By an estimation number different
types of cancer cases like beast, oral and cervical is near by 28 lacs from which about 11 lacs new cases occur and nearly 5 lacs take place deaths yearly. Consumption of Tobacco, high intake of salt, use of alcohol and physical passivity are primary behavior risks with what majority NCDs are connected. But scarcity of fiber and more stress also cause risk of having NCDs. It is well necessary to manage these dangers otherwise high blood pressure, increased blood sugar and total lipid and overweight can be led to. What is more age, heredity and sex also cause NCDs.

States and Central government are putting their efforts’ for controlling NCDs like Cancer, Stroke and diabetes. The central government offers technical and financial assistance through National Program for Prevention and Control of Cancer, Diabetes, CVD and Stroke (NPCDCS).

The flagship programme named the National Rural Health Mission (NRHM) in 2005 was stated having vital strategies, like strengthening of outreach services by inclusion of ASHA (village health worker) the integration of family welfare registering Rogi Kalyan Samities (RKS) for the improvement of management of hospital to strengthen the District Level programme Management Unit through the induction of professional, and efforts for communization of services through formation of health and sanitation committee at village, district and block level. The purpose of launching of this programme was to spread out wider the way of approach to quality health care to rural people.

As a sub-mission of NHM (National Health Mission), National Urban Health Mission (NUHM) was launched on 1st May, 2013. The purpose of NPCDCS was integration of NCD inventions in the National Rural Health Mission (NRHM) framework for the optimization of scarce resources to the end of customers and the aim of NCD cell is that it would make sure the implementation and supervision of the program activities linked to promotion of health, cure and referral and early diagnosis at various levels.

1.1 Objective of Research:

- To Study the activities under National Program for Prevention and Control of Cancer, Diabetes, of cardiovascular diseases and Stroke (NPCDCS) in Gandhinagar district of Gujarat State.
- To examine regarding need & importance of organizing camps for Non Communicable Diseases.
• To examine Social cost benefits of National Program for Prevention and Control of Cancer, Diabetes, of cardiovascular diseases and Stroke (NPCDCS) in Gandhinagar district of Gujarat State.
• To find out the problems & Prospects, related to National Program for Prevention and Control of Cancer, Diabetes, of cardiovascular diseases and Stroke (NPCDCS) in Gandhinagar district of Gujarat State.
• To Suggest remedial measures for improvement on implication of National Program for Prevention and Control of Cancer, Diabetes, of cardiovascular diseases and Stroke (NPCDCS) in Gandhinagar district of Gujarat State Schemes.

1.2 Aim of Research:

Following on activities related to National Program for Prevention and Control of Cancer, Diabetes, cardiovascular diseases and Stroke (NPCDCS) in term of creating awareness. Examine for need and important of organizing camps. Purpose is to understand social cost benefit of various programs under National Program for Prevention and Control of Cancer, Diabetes, cardiovascular diseases and Stroke (NPCDCS).

1.3 Strategy

During the 12th Financial Year Plan, the time that offered for consideration the coverage, is to be pan India, both the focus of the programme in on health promotion, prevention, detection, treatment and rehabilitative services at decentralized level up to district hospital under the overall umbrella of National Health Mission for primary and secondary level health care services.

At national level the programme division will acquire gradually, the guidelines and the strategy to implement district parts of the programme. These guidelines can be changed and adopted by the states according to necessity and situations for implementation of the programme. Involvement of community, civil society and private sector partnership would be crucial, and appropriate guidelines would be made for the same.

1.3.1 Encouragement of Health:

Unhealthy diet, stress and consumption of alcohol are the main reasons to hypertension, obesity, high blood glucose and high blood lipid levels. There will be
awareness generation in the community by the way of education, behaviors change, and mass media panchayats/local bodies and other government departments act. More intake of healthy foods
- Reduction in salt consumption
- Regular exercise
- Avoid Consuming of tobacco and alcohol
- Decrement of obesity
- Stress management
- Awareness about warning signs of cancer etc.
- Regular health check-up

1.3.2 NCDs’ Diagnosis, Treatment and Screening:
Prompt detection and screening of non-communicable diseases mainly diabetes, high blood pressure and common cancers would be crucial components. Higher health facilities would be referred to the suspected cases for further diagnosis and treatment. The common cancers like breast, cervical and oral, diabetes and high blood pressure screening of target population (age 30 years and above,) will be screened by conducting through individual screened camp approach at different levels of health facilities and in law-lying of large cities too. The Government in cities, population of more than one million would screen the urban slum population and along that the ANMs would be trained for conducting screening to conduct the same at sub center level. In support for Glucometers, strips and lancets may be given to the state or rate contract may be utilized for this purpose of screening of diabetes. The common infrastructure/manpower can be utilized for early detection of cases, diagnosis, treatment, training and monitoring of different programs such as National Program for Prevention Control of Cancer, Diabetes, CVDs and Stroke (NPCDCS), National Program for Health Care of Elderly (NPHCE), National Tobacco Control Program (NTCP), National Mental Health Program (NMHP).

1.3.3 To set up/ To strengthen Health infrastructure
For prevention, early detection and management of Cancer, Diabetes, Cardiovascular Diseases and Stroke there would be support Community health centers and district hospitals would be supported for Community health centers and district
hospitals for the sake providing cardiac care and cancer care at district level financial aid for establish. This consists provision for renovation and purchase of equipment’s like ventilators, monitors, defibrillator, CCU beds, portable ECG machine and pulse oximeter for cardiac care and chemotherapy beds. The doctors & nurses who are on contractual manpower will be utilized for NCD clinic and CCU as well as for day care-Chemotherapy unit. Under this programme financial support for the essential contractual staff such as doctors and nurses at these units would also be provided. NCD clinic will be run by contractual manpower provided at CHC level.

1.3.4 To Develop Manpower:

Health professionals & health care providers at various levels of health care would be trained for the encouragement of health, NCD prevention, early detection and management of Cancer, Diabetes, CVDs and Stroke under NPCDCS. The nodal agency/agencies will be recognized to develop the training material, organize training of health care providers at different levels and for monitoring the quality of the training. Those nodal would be identified in imparting training both for the programme management and for specialized training for diagnosis, treatment of cancer, diabetes, CVDs and strokes.

1.3.5 Other services:

For Obtaining of screening devices, essential drugs, consumables, transport of referral cases according to the details annexed for treatment of Cancer, Diabetes, CVDs and Stroke, financial support would be provided to district and CHC/FRU/PHC.

1.3.6 Integration with doctor:

Through primary health care, network doctors can play vital role in prevention and control of NCDs. Through behavior change, counseling of patients and their relatives on healthy lifestyle opportunistic screening for early detection of non-communicable diseases and their risk factors, and treatment using Indigenous System of Medicines they can be involved in health encouragement activities.
1.3.7 Public private partnership:
Through appropriate guidelines as per the need at Central, State, District levels and below, it is recommended to include civil, society, NGOs & private sector in health promotion, early diagnosis and treatment of common NCDs.

1.3.8 Research and surveillance:
States and Institutes will be given assistance for surveillance & research on NCDs. Importance should be given on making database, applied and operational research concerned to the programme. As per the methods of experts, the risk factors, Survey would be conducted at frequency. There would be support to cause registry programme of ICMR for having database in the country.

1.3.9 Monitoring & evaluation
Through NCD cells monitoring, Also evaluation of the programme would be carried out at different levels. For capturing and analysis of data, Management Information System (MIS) would be developed. The strategies have been proposed and will be implemented in all States and districts in the country and will be implemented at secondary and primary levels of health delivery system. In order, facilitate the effective implementation of the programme the guidelines on operational aspects and financial norms of the programme have been given in details.

1.4 Role of District Non Communication Disease Cell, Gandhinagar:
Gandhinagar is the capital of Gujarat. According to year 2011 population data collection census the total population of Gandhinagar district was 13.91 lacs in which males’ and females’ population was 7.24 lacs and 6.67 lacs in turn. Gandhinagar has total four Talukas. Hence total number of above mentioned villages is 252. In which rural area population is 7.91, males and females population was 4.08 lacs and 3.92 lacs respectively and urban area population is 6.00 lacs, male and female population was 3.15 lacs and 2.85 lacs respectively. (Sources : http://www.census2011.co.in).
In Gandhinagar number of Community Health Center (CHC), Primary Health Center (PHC), Sub Center and District Hospital are displayed below.

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>SUBJECT</th>
<th>GANDHINAGAR</th>
<th>DEHGAM</th>
<th>KALOL</th>
<th>MANSA</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Community Health Center (CHC)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>Primary Health Center (PHC)</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>3.</td>
<td>Sub Center</td>
<td>60</td>
<td>40</td>
<td>39</td>
<td>32</td>
<td>171</td>
</tr>
<tr>
<td>4.</td>
<td>District Hospital</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>205</td>
</tr>
</tbody>
</table>

Gandhinagar District Non Communication Disease Cell works under National Program for Prevention and Control of Cancer, Diabetes, CVD and Stroke (NPCDCS) programme facilitated.

1. Early diagnosis and prevention of diabetes, CVDs, Stroke and Cancer.
2. Investigations Blood Sugar, Blood Pressure, lipid profile, PAP Smear Test, Renal Function Test (RFT), Liver Function Test (LEFT), EGG, Ultrasound, X-ray, colposcopy, mammography etc.
3. Medical management of cases (outpatient, inpatient and intensive Care).
4. Follow up and care of bed ridden cases.
5. Day care facility.
6. Referral of difficult cases to higher health care facility.
7. Health promotion for behavior change.
8. Home visit care of bed ridden cases.
9. District NCD Cell arrange all Public awareness activities and Information Education Communication (I.E.C.) for health Education.
10. District NCD Cell arrange health checkup.

1.5 Limitations:

Studies under concerned National Program for Prevention and Control of Cancer, Diabetes, cardiovascular diseases and Stroke (NPCDCS) Schemes would be restricted to 30 years of age and above for all examination Gandhinagar district of Gujarat State.