INTEGRATED DISEASE SURVEILLANCE PROJECT

NCD RISK FACTOR SURVEILLANCE

TRAINING MANUAL FOR FIELD WORKERS AND FIELD SUPERVISORS

ORGANIZATION OF TRAINING PROGRAMME

DR P. P. JOSHI
ASSOCIATE PROFESSOR
CLINICAL EPIDEMIOLOGY UNIT
GOVERNMENT MEDICAL COLLEGE, NAGPUR

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1.Introduction to NCD Risk Factor Surveillance

NCD surveillance is challenging since NCDs are chronic diseases and have long latent period of exposure to risk factors and clinical manifestations. A surveillance system for a chronic disease is aimed at assessing its prevalence, identifying people at risk, establishing risk factors and monitoring trends over time. NCD risk factor surveillance is performed by determining the prevalence of risk factors as measured by periodic sample surveys conducted once in 3 to 5 years**.** It differs from usual surveys that capture information at only one period of time and yield data of limited interest. The frequency of reporting in NCD risk factor surveillance is much less as compared with CD surveillance.

A NCD Surveillance system would help in **assessing prevalence of NCD, establishing risk factors** among various populations, **monitoring trends** in population health behaviours and risk factors for chronic disease over time determine the **need for chronic disease prevention and control programs** and help **prioritize the allocation of health resources**. It would **guide the planning and evaluation of prevention and control program**, Improve prevention and control programs by advancing clinical, epidemiological and health services research, provides a comprehensive database for public awareness, consumer input, and collective actions to improve the public health.

NCD Risk factor surveillance: To start with, WHO recommends surveillance of risk factors for NCD and if funds permit this could be extended to NCD morbidity and mortality. This is because primary prevention is the key to control of this epidemic of NCDs. The major NCDs like cardiovascular diseases, cancer, chronic obstructive pulmonary disease and diabetes mellitus share common, preventable life style risk factors like, tobacco use, unhealthy diet and physical inactivity. Population measurements of these risk factors are used to describe the distribution of future disease in population. Risk factors of today are diseases of tomorrow. When NCDs become clinically manifest it is already very late in the natural history of the disease.

Emphasis has been given to risk factors, which are measurable under field conditions and amenable to intervention. Identification of risk factors and its quantification is of great importance in order to calculate the avoidable burden of disease and framing of cost-effective strategies for prevention. **The WHO STEPwise approach for NCD risk factor surveillance** is a sequential process, starting with gathering information on key risk factors by the use of questionnaires (Step 1), then moving to simple, physical measurements (Step 2), and only

then recommending the collection of blood samples for biochemical assessment (Step 3). At each STEP, there are core and optional modules available

2. SPECIFIC Learning OBJECTIVES

At the end of the session you should be able to:

- Describe the duties of the Supervisors and the Field workers.
- Conduct the interviews in the field using the NCD survey questionnaire.
- Describe and perform physical measurements like height, weight, waist and blood pressure in accordance with the laid down protocol.

3. Need for Training, categories of personnel to be trained

Training is an ongoing process and should be conducted before and during the data collection process. Training should be provided at all levels of the team involved in NCD surveillance, from field workers (interviewers) to trainers and supervisors.

The purpose of training is to:

- Ensure a uniform application of survey methods and materials
- Explain the rationale of the study and study protocol
- Motivate interviewers
- Improve overall quality of data

Field workers are to be trained to ensure that questionnaire data are collected carefully. Simple physical measurements such as height, weight and waist circumference can be performed by anyone who has been trained to follow appropriate protocols even for measures as blood pressure with automated devices.

Field workers would be trained using and be familiar with the field manual. The field manual describes and explains the details of all the procedures / protocols including quality control systems.

Surveillance of selected NCD risk factors will be performed by periodic cross sectional surveys in selected, representative sample conducted once in 3-5 years in States. A house-to-house survey would be performed with face-to-face interview with each respondent in privacy.

The survey teams would have one male and one female person so as to take care of gender sensitivities along with one health supervisor for every 3 teams.

Director of Public Health of the State, State surveillance Officer, District Surveillance Officer of concerned districts and NCD Surveillance units of Medical Colleges of the state will closely coordinate and supervise the survey**.** The survey will be contracted out to the best bidders for this Programme who will be able to deliver the results in stipulated time. Financial resources will be allocated under IDSP for this activity.

Personnel to be trained:

- State and District Surveillance Officers
- Field workers and Supervisors

4. Training of Field Workers:

In order to standardize the fieldwork, thorough training will be conducted to prepare the interviewers for their task. In each case, they must first study the field manual and appendices at home and do several written exercises. Next, they undergo several days of in-class training, during which they will study interviewing skills and techniques and will familiarise themselves with the questionnaire and the question-by-question instruction guide. They don't have to take the latter with them in the field and will therefore have to know it very well.

Training will be imparted to the supervisor and staff members through the regional training workshops. Further, trainers of each training centre should spend a few day's orienting the field staff with the study methods and conducting 'dummy' interviews. This would ensure that the interviewers have enough confidence in the field to tackle any situation. The re-orientation exercises would continue intermittently throughout the survey period in order to ensure that quality of data control is maintained through the entire period.

The field workers should be trained to:

- Conduct interviews in the field and be able to administer the questionnaire appropriately.
- Learn the skill of approaching the public, gaining consent, contact procedures, handling refusals.
- Learn interviewing techniques like asking questions in a non-judgemental manner, seek clarification, probe when necessary, provide feedback, record information, edit and check questionnaire for its completeness, clarity and legibility.
- Identify and use the interviewer instructions and learn the use of visual aids and show cards where appropriate.
- Take physical measurements in accordance with the laid down protocols.

The survey team would be trained to identify individuals with risk factors and those ‘at risk’ of NCDs. Field workers should refer all ‘abnormal’ or ‘at risk’ respondents requiring medical advise and treatment to the nearest CHC, District Hospital or Medical College.

5. Selection and duties of Supervisor:

A **supervisor** should have previous experience in surveys and should have personal qualities to and skills to effectively manage the team of at least 6 field workers. The supervisor is responsible for identification of areas and households for survey, controls data quality and ensures interviewers performance. He assigns work to interviewers and ensuring that there is an equitable distribution of the workload. The supervisor should maintain fieldwork control sheets, make sure that the assignments are carried out, regularly send completed questionnaires and progress reports to the field coordinator and keeps the central office informed of the team’s location. A field logbook is a useful way to record daily activities. Each survey team will be issued with a field logbook where daily activities will be recorded. The supervisor will keep this. He is responsible for ensuring that data and other information are transmitted reliably and in timely fashion back to the responsible statistical office. All staff members should make efforts to adhere to time line and maintain confidentiality of the data.

Duties of Supervisor:

- Obtain notional and layout sketch maps of PSU, original household listing and list of selected households of the selected PSU.
- Familiarise himself with the area of survey, identify best arrangements for the travel and accommodation of the team
- Contact the local authorities, health workers, community leaders, elected representatives, and inform them of the survey and in order to gain their confidence, cooperation and logistic support.
- Obtain supplies and equipment (questionnaires, blood pressure instruments, weighing machines, stadiometers, measuring tapes etc.).
- Ensure contact with the central office during the fieldwork.

- Supervise the interviewers, ensuring equitable distribution of work.
- Regularly send completed questionnaires and progress reports.
- Maintain record of daily activities in a field logbook keep track of number of interviews completed.
- Ensure data quality by observing the certain proportion of interviews conducted by each field worker.
- Monitor the performance of the field workers and provide feedback to them to correct any errors and improving their skills.
- Check the questionnaires for their completeness and edit them before sending to central office.
- Handle refusals and non compliant respondents
- Identify the list of health care facilities (for e.g. CHC, district hospitals, medical colleges) where the subjects with risk factors or abnormal levels should be referred for advice and management.

A mapping and household listing operation would be carried out in each selected PSU. The household listing operation would provide necessary framework for selecting households in the second stage. The steps involved in mapping and listing operation have been provided in the 'field manual'.

The details of objectives of mapping and listing, responsibilities of listing staff, listing materials, definition of terms, locating PSU, preparing maps, listing households, household selection can be obtained from the "Methodology Manual"

6. Training Strategy:

6 (a) Training Schedule:

Initiation and Training Workshop for Field Workers:

Guideline for the format of Training Program: 3 days

Summary:

3 Days: 9am to 1 pm; 2 pm to 5 pm

Breaks: Lunch (1-2 pm); 2 coffee breaks (15 minutes each), mid-morning and mid-afternoon

Sessions:

Day 1

Session Time	Session Name
09.00-09.30 am	Registration
09.30-09.40 am	Welcome Address
0940-010.00 am	Introduction and Objectives of the workshop
10.00-10.30 am	Overview and Introduction to surveillance with special reference to NCD surveillance in IDSP.
10.30-11.00am	Rationale and Need for NCD Surveillance,
11.00-11.15 am	Tea Break
11.15-11.45 am	Communicable vs. Non communicable disease surveillance
11.45 -12.15pm	Overview of WHO STEPwise Approach to NCD Surveillance
12.15-1.00pm	Rationale for selection of NCD Risk Factors for surveillance under IDSP; including their importance and relevance
1.00 pm – 2.00 pm	Lunch
2.00 pm –2.45 pm	Methodology of NCD surveillance under IDSP,
2.45 pm- 3.30 pm	Mapping of PSU and listing of Households Selection of sample, Organising and conducting surveys, Role of DSO
3.30-4.00 pm	Conducting interviews in field, approaching the public, Gaining consent, contact procedures,
4.00-4.15 pm	Tea Break

4.15-5.00 pm	Interview Techniques, Issues encountered during interviews, Language issues, interruption during Interview, handling refusals, Interviewing techniques, asking questions, clarifications, probing, recording, editing
DAY 2	
9.00-1.00 pm	Familiarising with NCD Questionnaire and Field Manual Going through question by question, explaining the importance and purpose of each questions in all sections and discussion
1.00 –2.00 pm	Lunch
2.00-5.00 pm	Physical Measurement protocol. Anthropometric measurement demonstration (Height, weight, waist, blood pressure measurement) and training
DAY 3	
9.00 –1.00p m	Filling up the NCD questionnaire (Mock interviews)
1.00 –2.00 pm	Lunch
2.00-3.30 pm	Mock sessions continued, (Taking Physical Measurements (Height, Weight, Waist, Blood Pressure)
3.30-5.00 pm	Evaluation of completed Questionnaires and Physical Measurement Techniques. Certification of anthropometry (examiners measures and field workers measure comparison)

6 (b) Training centres:

The Regional NCD Surveillance Centres (RNSC) will be responsible for training activities under IDSP. There are the five sentinel centres which have already carried out NCD Risk Factor surveys as a part of the Indian Council for Medical Research and WHO sponsored study. The selection of these sites was based on regional criterion and these would serve as nodal agencies for each region. These centres are:

1. Comprehensive Rural Health Services Project, AIIMS, Ballabgarh, Faridabad - North
2. Government Medical College Nagpur - Central
3. Regional Medical Research Centre, Dibrugarh - East
4. MV Diabetes Research Centre, Chennai - South
5. Sri Chitra Tirunal Institute of Medical Sciences, Trivandrum - West

In addition, a total of 9 institutions (ICMR institutes could also be considered) in the Phase 1 state would be identified to undertake training of staff for performing NCD risk factor surveillance.

It is vital for ensuring standardization that all the personnel collecting the information are uniformly trained. It is therefore proposed that members of the RNSC and selected institutions do the training of the field staff.

7. Monitoring and Evaluation of Training

Quality control of training is an essential component of training strategy. Internal and independent external evaluation will be part of the IDSP training programme. Each level of training would be evaluated, to assess the contents, the process and the effectiveness of the training. Feed back and corrective measures will be initiated to improve the training based on evaluation reports. If the training were consistently poor quality and not achieving the objectives then the training would have to be repeated to cover the gaps. If selected training institutes do not perform and provide high quality training then alternate institutions will be identified.

While external evaluation would be a done at specific intervals for the training programme, the Surveillance cell in the district and the state would be regularly monitoring the progress of training to ensure that the staff have been covered by the training programme adequately. Untrained staff would be identified in a regular manner so that they can be provided with appropriate training

Field Visits for Quality Assurance: The members of RNSC will undertake field visits during the time of actual survey to ensure quality and will also address any specific field related issues. These visits will also be used to prepare the state level machinery for data analysis and interpretation.

8. Importance of quality control of data.

Quality control means to reduce errors to a minimum. It is important in any survey to have data as accurate as possible within practical data collection arrangement. This is because survey results determine the further course of actions to be taken by concerned ministries and agencies. In order

to achieve this, questionnaires have been carefully designed and procedures have been put into place in order to be followed. Training is part of the overall quality control to ensure that the team member involved in the survey understand the methodology and concept in the same way. One of the most important stages of data quality control is interviewing and completing questionnaires. Therefore, there is a great responsibility of maintaining a high standard of data collection throughout the field survey.