Summer Training at
IIHMR University, Jaipur

Comprehensive National Nutrition Survey (CNNS)

By
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Under the guidance of
Dr. Monika Chaudhary

MBA Hospital & Health Management
2017-2019

Institute of Health Management Research
The IIHMR University, Jaipur
2018

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that **Mr. Zahid Sarafraz Khan** has undergone summer training in comprehensive national nutrition survey (CNNS), J&K, conducted by Ministry of health and family welfare and UNICEF, implemented by IIHMR University from 2nd April 2018 to 2nd June 2018.

The candidate himself completed the project assigned to him during summer training. His approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health management.

I wish him success in all his future endeavors.

Dr. Monika Chaudhary
Associate professor
IIHMR University, Jaipur

for (Col (Dr) Ramod Kumar) 26.6.18
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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Zahid Sarafraz Khan or has undergone summer internship training in the project titled "Comprehensive National Nutrition Survey (CNNS)" at Jammu & Kashmir implemented by IIHMR University, Jaipur for a period of two months (02 April 2018 to 31 May 2018) sponsored by UNICEF and MoHFW. During Internship, Zahid Sarafraz Khan was dedicated and sincere towards the work assigned.

Project In-Charge

Arindam Das. 20/6/2018

Dr. Arindam Das

Associate Professor

IIHMR University, Jaipur

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ACKNOWLEDGMENT

I would like to extend my gratitude to thank Dr. Arindam das, associate professor IIHMR university for providing me the opportunity to work in comprehensive national nutrition survey for the state of Jammu and Kashmir .

He helped me during the entire training period as mentor. i am thankful for his encouragement at various stages of my training that helped me inspire and boost my confidence . I acknowledge with thank care and concern, which I have received from laxman Swaroop associate professor ,IIHM university who acted as state coordinator for the project .

I would to thank shobana Sivaraman for providing me with necessary suggestions and whose experience helped me in my learning.

I am grateful to my fellow colleague Dr. Vasundra Kapoor and Dr. kanika Mahajan for their constant support during the training period .

I also thank IIHMR university for including such needed taining programme . I am also thankful to my institute mentor Dr. Monika Choudhary for her constant support and guidance .

I would also want to express my sincere gratitude to my family whose support and guidance was always providing me strength to work hard .

TABLE OF CONTENT

ABBREVATIONS

UNICEF . : united nation international children education fund

GoI. : Government of India

MOHFW : Ministry of health and family welfare

CNNS : comprehensive national nutrition survey

DQO : Data quality observer

DQA. : Data quality assurance

BMO : block medical officer

ANM. : Auxillary nurse midwife

ASHA. : Accredited social health activist

PSU : Primary sampling unit

CDC :Center of disease control

NIM : National institute of nutrition .

BACKGROUND

Referring to the 2005-06 data of NFHS it was found that almost half of children under the age of five years (48 percent) are chronically malnourished. Also underweight children under five years of age are in the range of 20 to 60 per cent in different states. Sikkim and Mizoram faring well with around 20 per cent children underweight while Madhya Pradesh being worse off with 60 per cent. And that more than half (54 percent) of all deaths before age five years in India are related to malnutrition

UNICEF had tie up with GoI to conduct the first ever national survey to measure nutrition level of children in country, data which is being collected to measure the deficiency of both micro and macro nutrient, including vitamins and worm infestation .

The CNNS rolled out in March 2016 with an aim to cover more than 1.20 lakh children in the age-group of 0 to 19 years. CNNS is a multidisciplinary survey that includes various nutritional and blood collection sampling. It even takes into account, anthropometric, immunization, antenatal care to mother, household food security, water sanitation and socioeconomic characteristics, the aim of the study is to find the nutritional status of a children from the age group 0-19 to elevate quantify, true malnutrition burden and to address the nutrition transition, to serve baseline to elevate the progress of recently launched initiative including nation nutrition mission (NNM).

AGENCIES INVOLVED

Ministry of health and family welfare, government of India and United Nations children's fund (UNICEF). The survey has received the ethical approval from post graduate institute of medical education and research (PGIMER). PGIMER will provide technical and monitoring support for survey .The quality assurance of biochemical sample will be managed by the national institute of nutrition (NIN) Hyderabad, All institute of medical science, New Delhi and clinical development service agency.

For survey coordination and implementation population council is responsible. SRL limited is hired for collecting the biochemical sample (blood, urine, and stool) and four survey agencies (sigma research, Delhi, IIHMR, Jaipur, GfK mode, Delhi and Kantar public, Delhi) are hired to collect the household information and anthropometry measurement.

Overall coverage: As of the CNNS has been completed in 23 states in India. The last phase will cover the rest of the 7 states. The implementation was carried out in three phase and will cover whole India in 4 zones.

Indian Institute of Health Management Research.

Institute of Health Management Research (IIHMR) is an Institution dedicated to the improvement in standards of health through better management of health care and related programs

Mission and vision:

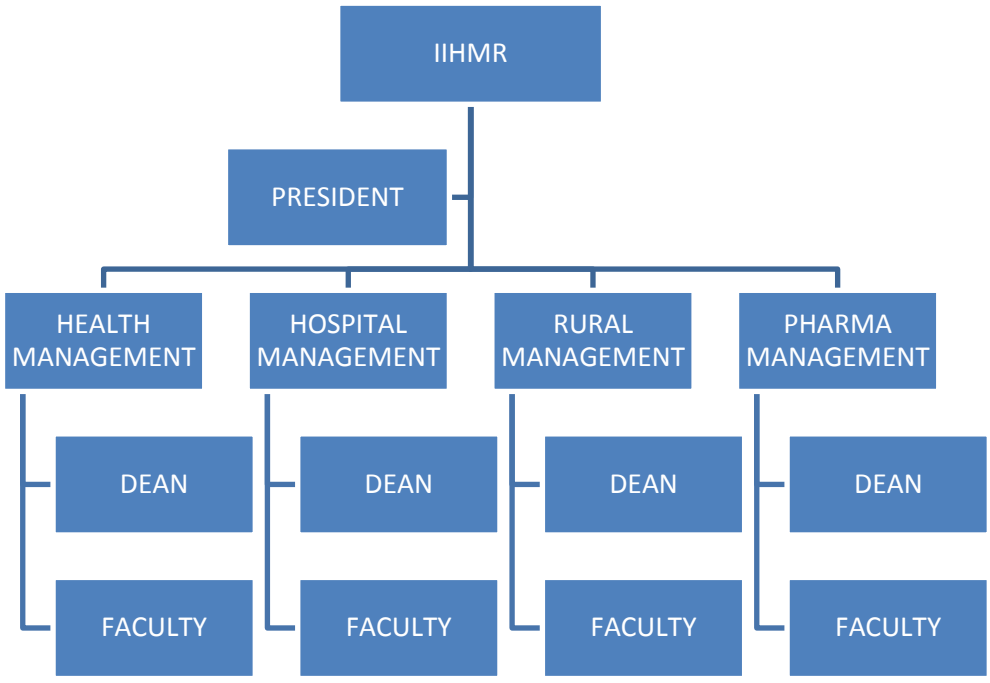
1. Capacity building of health professionals to effectively manage health services at the national, global level.
2. Conduct policy and programmatic research on the most important policy and management issues in the health sector.
3. Develop successful model of services delivery and management, which can be adopted widely by public sector and NGO health care organization.
4. Disseminate latest knowledge and management technology in India and other developing countries

One of the major aspect of IIHMR is to conduct and implement various research projects including national family health survey(NFHS),longitudinal aging study in India(LASI), district level household and facility survey(DLHS)and other. One of such project, which IIHMR university is currently undertaking is CNNS. IIHMR has been assigned to complete zone 1 in 3 phases which includes namely states like Delhi, Himachal Pradesh, Rajasthan, Haryana, Punjab, Gujarat ,and Jammu and Kashmir .Phase I and II have been completed and phase III includes Jammu and Kashmir is currently being implement from March 15 ,2018 . I worked as a master trainer and field coordinator.

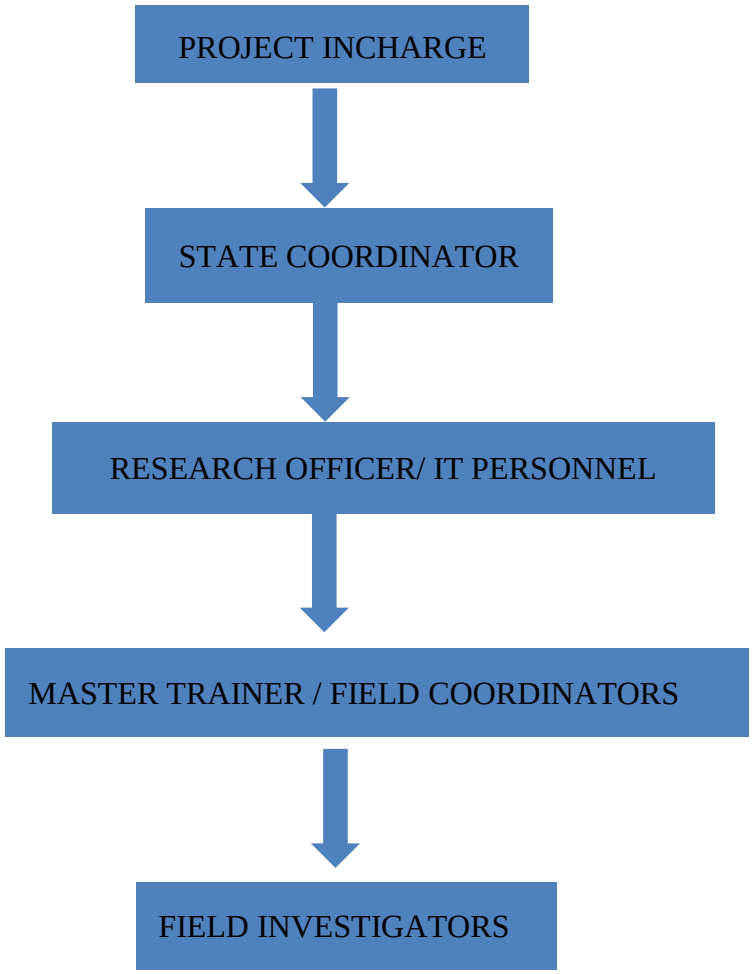
STATES	DATE
DELHI	DEC 2015-JUNE 2016
HIMACHAL PRADESH	MAY 2016-SEPT 2016
RAJASTHAN	NOV 2016-DEC 2016
HARYANA	JAN 2017-APRIL 2017
PUNJAB	AUG 2017- MARCH 2018
GUJRAT	DEC 2107- APRIL 2018
JAMMU AND KASHMIR	APRIL 2018-SEPT 2108

ORGANOGRAMS

A. IIHMR



B. CNNS



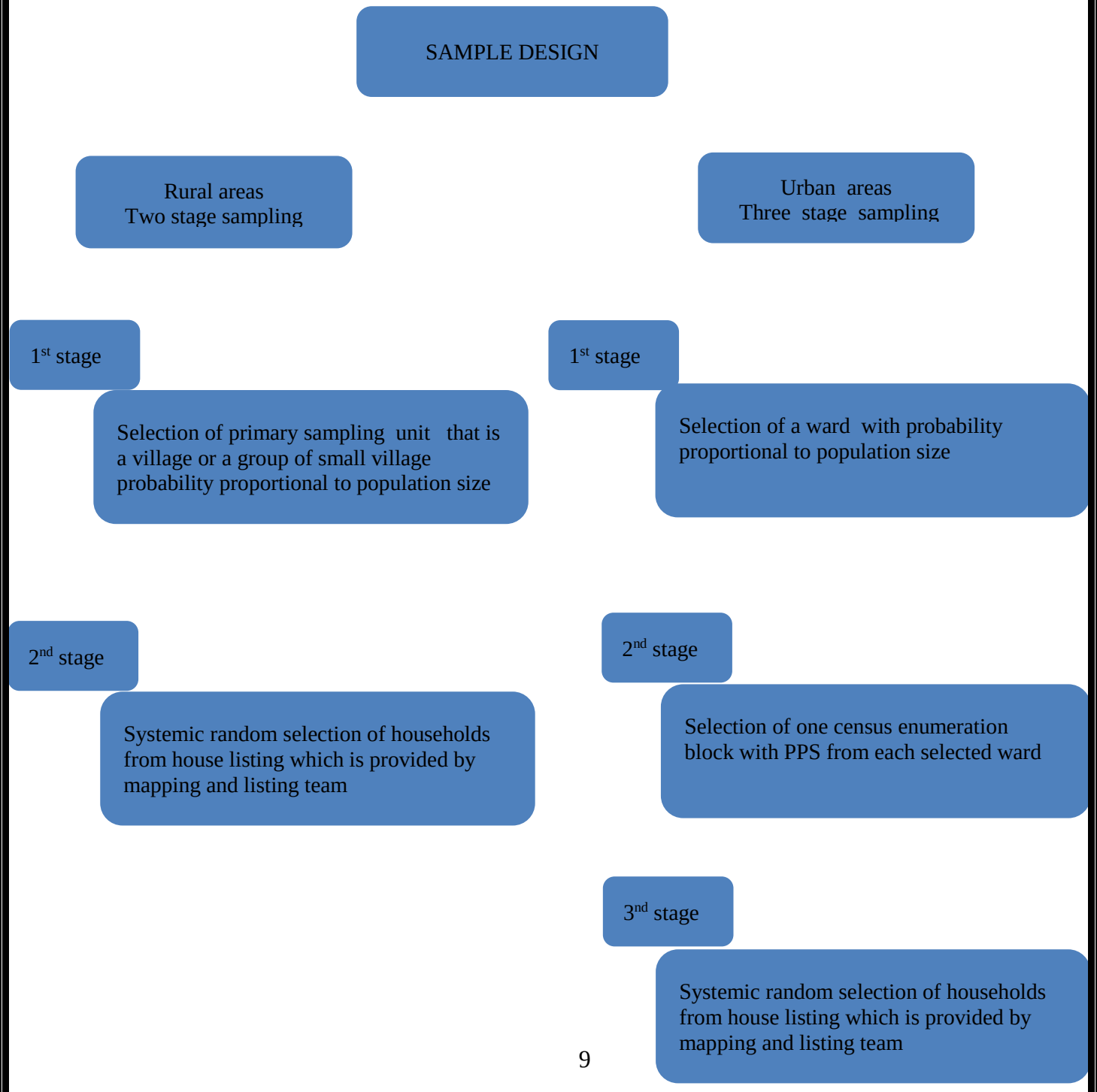
Project in charge of the CNNS which has responsibility for the vibrant planning, designing executing, monitoring, controlling and closure of the project. State coordinator and research officer are the key persons for the execution, monitoring and controlling of the project. Field investigators are categorized as research investigators, health investigators, supervisors, quality controllers; they are responsible to collect the data from the selected households. I was associated with the CNNS project team from 15 marches to 2 June. I did my summer internship in CNNS Jammu and Kashmir

SURVEY METHODOLOGY

Survey design: Cross sectional study design.

Sample size: The total size sample size for the survey is 1, 37,000. With 3960 sample size in Jammu and Kashmir

The total sample size for biomarkers 60 % of sample size.



SURVEY OBJECTIVES

1: Assess, for the first time, the national prevalence of biomarkers of important micronutrient deficiencies, subclinical inflammation and STH infections among children and adolescents.

2: Assess the prevalence of overweight and obesity, along with information on body composition, cardio-metabolic risk, muscular strength and fitness among school-age children and adolescent

3: Explore the associations between the nutritional profile of children and adolescents and the health status, cognitive development, school readiness, educational outcomes and various important determinants such as environmental conditions (WASH) and dietary diversity.

SPECIFIC OBJECTIVES FOR SUMMER INTERNSHIP:

1. To assist the CNNS team in project planning, logistic and implementation
    - Attending training of trainer for 15 days
    - Finalization of research tools to local language
    - Logistic arrangement for investigators' training
    - Recruitment of investigators
    - Training of investigators

2. To assist field survey implementation and monitoring of data collection procedure...

3. To assist and learn field data collection and quality control procedure.

Training of Trainer (TOT):

TOT for CNNS phase III representing IIHMR at Darjeeling. The training was jointly imparted by UNICEF, Ministry of health and family welfare and population council. The training programme was for 2 weeks. The detailed discussion about tools was carried out, besides mock interviews and role plays were demonstrated during the training, additional field practice was conducted during the TOT.

OBJECTIVE OF TOT:

After completing the TOT and mentoring process, I as trainer was able to

1. Deliver the training to the field investigators
2. Have a clear idea regarding study tools methodology, sampling design Of CNNS
3. I gained confidence to monitor the survey properly so that we could get quality data from the field
4. Fulfill the responsibilities of the certified trainer.

Project planning

Finalization of research tools:

Altogether nine different schedule are incorporated to collect information, for CNNS since phase 1. The tools were developed by UNICEF in consultation with MOHFW, GoI and population council . The same tools are approved by ethical review board of UNICEF, PGIMER Chandigarh and population council. In addition, it is also approved by ethical review board of IIHMR University.

All the nine schedules were translated into Urdu (language used in J&K by me with the help of two colleagues, the same have been back translated and got approval for the collection of data in Jammu and Kashmir.

DIFFERENT RESEARCH TOOLS USED FOR THE CNNS

As mentioned earlier nine different tools are used in CNNS, which are being presented in table 1

Table 1. Research tools used for CNNS

TOOLS	TARGET GROUP	RESPONDENT	
HOUSE HOLD QUESTIONAIRE	Above 18 years	HEAD OF A HOUSEHOLD	Family -level information ,environmental condition ,food security
CHILDREN (0-4YEARS OF AGE)) QUESTIONAIRE	15 - 49 years	MOTHER /FATHER /CARE GIVER	INDIDIVDUAL INFORMATION
CHILDREN (5-9 YEARS) QUESTIONAIRE	15-49 years	MOTHER /FATHER /CARE GIVER	INDIVIDUAL INFORMATION
ADOLESCENT(10-14 YEARS) QUESTIONAIRE	15-49 years	ALDOLESCENT	INDIDIVDUAL INFORMATION
ADOLESCENT(15-19 YEARS OF AGE) QUESTIONAIRE	15-19	ADOLESCENT	INDIDIVDUAL INFORMATION

TOOLS	TARGET GROUP	RESPONDENT	
VILLAGE QUESTIONAIRE	Above 18 years	PANCHAYAT HEAD	Community information on health, education, infrastructure, and environmental condition
ANTHROPOMERTRY	0-19	Child	Height, weight, skin fold thickness, MUAC, waist circumference, hand grip strength
ASQ	1-36 months and 29 days	Mother	
SRI	37-71 months and 29 days	Child	

RECRUITMENTS AND RECRUITMENT CRITERIA FOR FIELD INVESTIGATORS:

An advertisement was published in local newspapers to select prospective field investigators for CNNS. Around 200 personnel came to attend the interview on 22 April 2018 in Srinagar. 70 investigators were selected for the main survey including health investigators another 16 were selected for house listing and mapping. I tried to observe the following qualities of the investigators during the interview.

1. At least Graduation degree preferably in education /social science
2.Willing to undertake extensive field travel to conduct the interview with the help of assessment tools and collect data related to the project.
3. Computer proficiency as the data collection will be on CAPI.
4. Experience of household survey if any
5. For the health investigators the persons need to be at least nursing graduation

Desirable;

- ✓ Good communication skills and fluency in English as well in local language.

Understanding of research work, field survey and methodology will be an advantage...

TRAINING OF INVESTIGATORS:

The training during for the field investigators and health investigators for 25 days in CNNS...It was important that field supervisors, DQ observers, and the DQA team attended the state-level training. It is mandatory for both supervisors and data quality observers to attend all training session even though they have participated and worked in any large scale survey. Involvement of both during training is vital to understand for proper understanding their roles and responsibilities.

After main survey and health investigators training, additional training of two to three days was provided for the supervisors DQ observers and DQA team on their defined roles to ensure that all field investigators follow a survey protocol which is uniform and know how to monitor fieldwork quality.

During training and the field work there might attrition of investigators... So it was mandatory to keep additional number of investigators so that they could replace the investigators who left.

Training tools

- Class room teaching
- Resource person
- Mock interviews
- Role play
- Videos and pictures
- Field practice

OBJECTIVE NO.2:

SURVEY IMPLEMENTATION AND MONITORING

A) Preparing for a fieldwork

a) Collection material for field work.:

Before all team roll out ,each team supervisor has a responsibility to collect adequate material which will be necessary in the field . following is the list

- Supervisor and individual interviewer manual
- Supervisor assignment sheet
- Listing and mapping material
- Anthropometry equipment

b) Arranging transportation and accommodations

It is the supervisor's responsibility to make all necessary travel arrangements for his or her team, whenever possible, in consultation with the central office. Vehicles will generally transport the team to assigned work areas. The supervisor is responsible for the maintenance and security of the team vehicle.

In addition to arranging transportation, the supervisor is in charge of arranging for food and lodging for the team. If they wish, interviewers may make their own arrangements, as long as these do not interfere with fieldwork activities or break the team spirit. Lodging should be reasonably comfortable, located as close as possible to the interview area, and provide secure space to store survey materials. Since travel to rural PSUs is often long and difficult, the supervisor may have to arrange for the team to stay in a central location.

c) Contacting local panchayat head and BMOs:

Each team supervisor follows the day 0 survey protocol ,also referred to as social mobilisation day where the supervisor will meet the local panchayat head ,BMOs ,ASHA ANM etc to explain the survey and show them letter of introduction which will provided by IIHMR signed by the mission director NHM J&K. But here it is to mention the way and sensitivity with which the supervisor will explain the purpose of the survey will ultimately help to win the cooperation to carry out the interview and anthropometry measurement and later to collect the blood sample by the SRL team.

d) Contact the state field survey coordinators:

Each supervisor should maintain regular contact with the state coordinator and PC state coordinator .

e) Identification and location of selected household in a PSU using maps .

Prior to the visit of the main survey team ,the lister and the mapping team will visit to the selected PSU and do the listing and the mapping and will provide those documents to the state coordinator . The state coordinator will provide those maps which will include sketch maps , general PSU map and copy of the household listing to the team supervisor for each and every PSU in which the team will be visiting . The sketch maps will help the team to locate the boundaries of the selected PSU and the general map will guide the supervisor to selected households to be assigned to the research investigators for the interview , anthropometric measurement and the blood collection .

B) Organising and supervising field work:

Approach	• Team supervisor will inform village head about the survey activities. • Interviewer will approach selected
Selection of respondent	• Appropriate age estimation of the child. • Selection of respondent for eligible information
Consent/assent	• Written consent and /or assent to be taken before starting the interview as per protocol and age group.
Gender specific interview	• Male interviewer will interview male respondent • Female health investigator will take measurement of female child/adolescent
Maintaining privacy	• Privacy is to be maintained during ,anthropometry measurement ,and biological collection

a) Interview process:

The fields team collection data must adhere to the following the step.

b) Daily work assignment to field investigators.

The following tips may be helpful to the supervisor in assigning work:

- Each male and female investigators should be assigned enough work for a day keeping in mind the duration of each interview and work condition in that area
- Supervisor should assign more households to interviewer than he/she can do ,this is imperative as they might observe some households or children not available at the time of interview .
- In the beginning assign fewer interview so that both the supervisor and DQ can have close supervision of the interview .
- Work should be assigned fairly taking into account each interviewer capacity and strength .However every time a tough job should not directed to individual but should fairly given to everyone .
- Record should be maintained every day
- All the selected households and individual interview should be checked before leaving for another PSU

c) MICROPLAN IN A PSU:

Day 1	•For social mobilization, a team will hold a meeting with the panchayat leader or ward members to explain the purpose of the visit •A quick verification check will be conducted of sampled households •Some interviews can be completed on day 1
Day 2	• Each investigator will assigned households and follow the instruction of the team supervisor. • Investigators will introduce themselves and explain the purpose of the visit
Day 3	• Investigators will revisit the households that were locked or where the interview could not be completed on the previous day • Laboratory technician will accompany interview to households designated for biological sample collection.
Day 4	• Will continue similar process from the previous day
Day 5	•Complete progress sheet at investigator level •The team supervisor and QC team will certify the completion of work in a PSU; send all the data to the IT/state coordinator and the Population Council zonal coordinator
Day 6	• For the movement and transportation to the next assigned.

C) Monitoring interviewer/ investigators performance:

- Team supervisors and DQ observers will provide the first level of supervision. Supervisors will be responsible for monitoring the teams. Supervisors will periodically return to a few recently interviewed households for a re-interview, and compare their list of household members with the list prepared by the original interviewer to detect any attempts to deliberately distort age or omit household members.
- QC observer will be observing interview to make sure that all the survey protocol are to be followed accurately .Besides interview she will monitor anthropometry data collection .Each team QC will at least observe one full interview and rotate among another interviewer . since CAPI is being used for data collection ,field data QC will have enough time for both observing interview as well as to conduct re-interview .
- Supervisors/QC observers will be responsible for reviewing completed household and individual interview data for each PSU while the interview team is still in the PSU. The supervisor/field data QC observers will also observe some interviews, conduct a sample of short re-interviews, match the responses collected during the reinter view with the completed interview and provide feedback in the initial stages of fieldwork, as listed in the table below. The field data QC observers will discuss the errors in data collection with each interviewer, and if necessary, interviewers will be sent back to re-interview respondents.

Type of interview	Number in a psu	By
Re-interview	Four (one of each interview)	DQ observer /supervisor
Observation(interview)	Six (at least of each interview)	DQ observer /supervisor

Observation (anthropometry).	two	DQ observer (Anthro)
Re-measurement (anthropometry)	two	DQ observer (anthro)
Observation (biological sample collection)	two	Supervisor
Observation (ASQ and SRI)	two	DQ observer (anthro)

a) OBSERVING INTERVIEWS:

- To improve interviewer performance it is important to observe interview because data collection alone cannot detect for error and misconception The DQA observer should take care to monitor the interviewer to ensure that all interactions are being conducted in a professional and sensitive manner, and that the respondents are being treated respectfully. In addition, the observers must monitor how the interviewer asks questionnaire

b) EVALUATING INVESTIGATORS PERFORMANCE

The DQ observer should meet daily with the interviewers to discuss the quality of their work. In most cases, mistakes can be corrected and interviewing style improved by pointing out and

discussing errors at regular meetings. At team meetings, the DQ observer should point out mistakes discovered during observation of interviews or noticed during case reviews. The observer should discuss examples of actual mistakes, being careful not to embarrass individual interviewers. Re-reading relevant sections from the Interviewer's Manual together with the team can help resolve problems. The DQ observer can also encourage the interviewers to talk about any situations they encountered in the field that were not covered in training. The group should discuss whether or not the situation was handled properly and how similar situations should be handled in the future. Team members can learn from one another in these meetings and should feel free to discuss their own mistakes without fear of embarrassment.

The DQ observer and supervisor should expect to spend considerable time evaluating and instructing interviewers at the start of fieldwork. If they feel that the quality of work is not adequate, the interviewing should stop until errors and problems have been fully resolved. In some cases, an interviewer may fail to improve and will have to be replaced. This applies particularly in the case of interviewers who have been dishonest in recording the ages of children.

Objective 3:

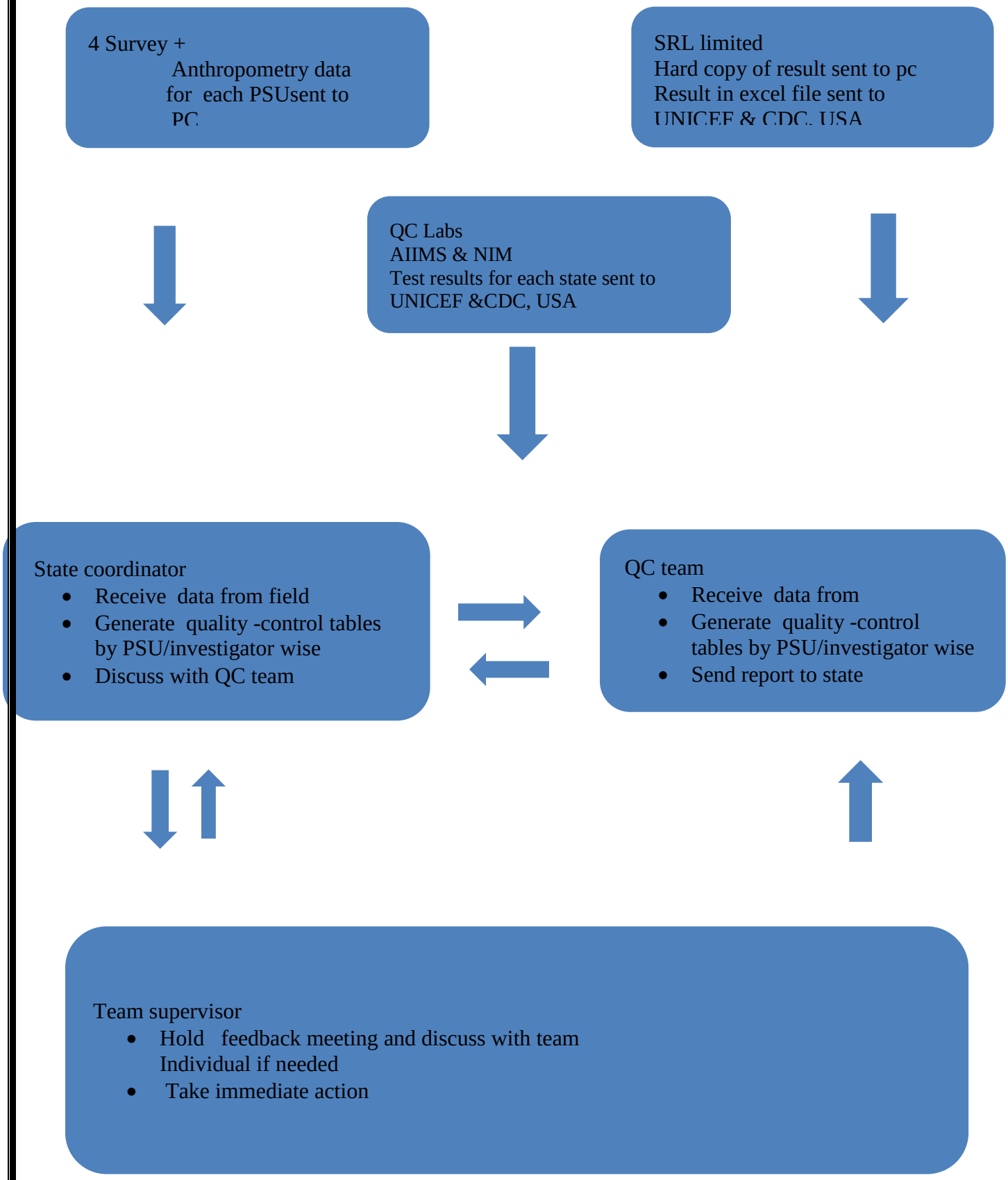
FIELD DATA FLOW AND FEEDBACK SYSTEM .

With the use of CAPI, data are entered directly into the computer and can easily be uploaded into the database. At the end of data collection in each PSU, the FSA supervisors will be responsible for sending batches of completed interviews and anthropometric data from each PSU to state coordinators (both the survey agency and the Population Council) before moving out of the PSU. The Population Council state coordinator will check each batch of PSU data and provide feedback to the field team within a week.

Laboratory technicians in the field will be responsible for sending biological samples with study unique identification (UID) numbers to designated laboratories. The results of all laboratory tests for each state will be sent directly to Population Council Zonal Program Officers who will integrate the laboratory results with the survey and anthropometric data.

An 11-digit UID code will be created for each respondent. The UID will include codes for state, residence (rural/urban areas), PSU, household, age group, and respondent line number.

DATA FLOW PROCESS .



A) FIELD WORK MONITORING.

In phase-1, monitoring of fieldwork within PSU was undertaking by using monitoring sheets or checklists for interviewer assignments. Incorporating phase-1 learning's, the monitoring system in CNNS has been revised for Phase-2 and phase 3, to maintain the data collection quality. In phase-2, 3, manual field reporting has been replaced through system to provide real-time feedback to data collectors in the field. There are 8 types of measures inbuilt in the CNNS-DQA system to monitor interviews and measure data collection progress.

1. Interview process sheet (response rate) through CAPI

2. Anthro data entry validation through CAPI

3. Test requisition from (TRF) completion and data entry in CAPI.

4. Participant 'postal address to send biological sample report.

5. DAQ checklist via mobile app from PGIMER

6. Rapid Pro SMS based daily biological monitoring.

7. Real time concurrent monitoring by DAQ team using CAFÉ

8. Frequency check tables to measure team wise progress.

Interview process sheet (response rate) through CAPI.

A 10 members team where 4 research investigators for individual interviews, 2 health investigators for anthropometric measurement and 2 phlebotomists for biological sample collection are responsible to complete the PSU in one week. To check the interview performance at investigator level or at PSU level, CAPI has been updated and the option added in the main menu

ANTHRO DATA ENTRY VALIDATION THROUGH CAPI.

Anthropometric data is first entered in form and then later in CAPI every evening by RI with the help of HI. There are chances of error while entering the data. Earlier, data entry inconsistencies were observed at a later stage, during data analysis. To avoid such inconsistencies, the CAPI program has been updated and all entered data can now be viewed immediately by clicking an option provided in main menu. In this way, data collectors can quickly review the entered data and identify inconsistencies. Steps to view the entered data in investigator laptop as well as in supervisor laptop are mentioned below.

STEP 1	Open CNNS Menu
STEP 2	Click on Anthro data validation
STEP 3	After clicking on ‘Anthro data for validation’ .CS Pro export data will pop out .
STEP 4	Click ‘yes ‘ an excel sheet will open with all the entered data .

Test Requisition form (TRF) completion and data entry in CAPI.

To maintain the record of biological sample collection, TRF is the form in which all necessary information is being captured in the field. There are two major parts in the TRF – first part to be filled by survey team supervisor before collection of biological sample and second part to be filled by phlebotomists after collection of biological sample. A filled TRF data has to be entered in CAPI on a daily basis. Steps to complete the TRF and the data entry in CAPI on a daily basis are mentioned below.

STEP 1	Supervisor will complete the first part of TRF as soon as the child /adolescent is selected for biological sample collection (child name, age, sex, ID, home address etc.
STEP 2	Supervisor will hand over all the filled TRFs to phlebotomists in the afternoon .
STEP 3	Phlebotomist will visit those children /adolescent on the same day for urine and stool container distribution.
STEP 4	Next morning both the phlebotomists will visit same households to collect blood sample as well as to collect urine and stool sample
STEP 5	After collection of all types of sample, phlebotomist will complete second part of TRF (fasting, BP, tubes collection etc.) and hand over the carbon copies to survey supervisor
STEP 6	Survey team supervisor will enter all the filled TRFs in CAPI on daily basis and can see the sample collection output and make appropriate within PSU to improve the biological response rate

After completing all the process and TRF entry supervisor makes a zip folder of the data folder which is in the D drive with the name of PSU number and send it to Population Council.

DQA Checklist via mobile app from PGIMER

PGIMER has developed a checklist (structured questionnaire) to understand the smooth implementation of field work adhering the CNNS protocols. This checklist will be used via mobile app by PGIMER staff for external monitoring and by Population Council staff for internal monitoring of DQA team as well as survey teams. Following are the sections in the checklist.

Section- 1 & 2 :

Team preparedness in term of material and equipment that are to be used during data collection.

Section -3:

Monitor Data Quality Assurance team's work.

Section 4:

Evaluate research investigators work.

Section 5:

Evaluate health investigator's work

The external monitors (from PGIMER) will enter the monitoring data via mobile app and submit the same from field.

Rapid Pro SMS based daily biological sample monitoring.

Rapid Pro SMS is free networking which is designed by UNICEF to have communication using basic smart phone ,managing workflow, to automatic analytic process and present data in real time . Rapid SMS will be used to facilitate communication between collection points/ reference labs and SRL health workers .this will importantly reduce the amount of time between collecting blood samples and its processing in the SRL lab.

Steps to operate the Rapid Pro SMS based system is mentioned below.

Survey supervisor at PSU

The survey supervisor sends an SMS report on day 0 of data collection .In the SMS report he provides the PSU number .This is to indicate that survey is initiated in that PSU.

Sample collection at home:

The Phlebotomist or Assistant sends an SMS report when they place the first samples into the cool box and they start the data logger. In the SMS report, they provide the data logger ID, the PSU number and confirm the correct report.

Collection Centre:

The person responsible to receive BIO samples at the collection centre sends an SMS report upon receipt of the cool box. In the SMS report, they provide the data logger ID, the PSU number and confirm the correct report.

Reference Lab:

The person responsible to receive BIO samples at the reference laboratory sends an SMS report upon receipt of the cool box. In the SMS report, they provide the data logger ID, the PSU number and confirm the correct report

Real-time Concurrent Monitoring by DQA team using CAFÉ.

Real-time concurrent monitoring system in CNNS exists both for internal (survey agency) and external (lead agency) monitoring. Internal monitoring use to do by data quality assurance observer recruited in every survey team. While external monitoring uses to do by DQA team recruited from lead agency in each state. Apart from the interview observations, these people conduct a some re-interviews and match the responses with the first completed interview and provide feedback immediately to the team members. They discuss the errors in data collection with each interviewer, and if necessary, interviewers will be sent back to re-interview respondents.

Frequency check tables to measure team wise progress

There are many field check tables generated once the lead agency receives the field data to check the data inconsistency. These tables use to generate fortnightly by zonal coordinators of lead agency. Zonal coordinators review the table output which shows the team wise performance and accordingly provide immediate feedbacks to field teams in a regular interval.

CONCULSION:

The CNNS for J&K started on 23 April 2018 and will continue till august 2018. The survey has four layers, listing and mapping, main survey, anthropometry measurement, and biological sample collection by SRL. There are 60 households in a PSU and 66 children were randomly selected from these household with 22 children from age group 0-4, 22 from 5-9 and 11 each from 10-14 and 15-19 respectively. Residential training were conducted for 25 days and 6 teams were formulated for main survey with 8 member composition including one male supervisors , one female quality control (QC), 3 female research investigators (RI),One male investigators . Two health investigators and phlebotomist and 6 teams for listing and mapping. Each listing and mapping team will spent 4 days in a PSU for listing and mapping and each main survey team will spent 5 days to complete household and individual interviews. .

References:

IIHMR OFFICAL SITE

Manual that was provided by population council at TOT