## Research Methods in Health Promotion Prof. (Dr.) Madhumita Dobe Chairperson, Foundation for Actions and Innovations Towards Health Promotion Week 10 Lecture 47: Community-Based Participatory Research in context to Health Promotion (Part II)

In this series of research methods in health promotion, we were discussing community based participatory action and research in the context of health promotion. Now, let us now deal with these few concepts. One is the steps of these CBPARs, the methods of data collection, data collection tools and techniques. Now, CBPAR has already discussed follow certain steps, it is not an arbitrary mechanism, it has to be well planned and well thought of in advance. So, the first step in doing a participatory action research involving the community is to identify the research question as always, the research question has to be identified first and the geographic focus has to be decided upon. So, based on the community needs strengths, interests and their capacity to take action, we have to balance it and decide on what is the issue that needs addressing.

There might be multiple issues, but again before choosing the research question, we need to also balance it with the communities needs, the community strengths, the interests of the community and their capacity to take action. So, the second step is what do we really want to know, what hypothesis are we trying to test, what do we want to highlight or draw attention to that is not already known or if known not sufficiently demonstrated. I would like to dwell for a moment here, this is a very important consideration, for this a very good ROL needs to be done. Because most of more often than not we end up with inferences which are already known or demonstrated elsewhere.

So, instead of just replicating what is already been known or is already demonstrated elsewhere, we need to finally analyze and find out that is there something that we really want to highlight which is not been done elsewhere or which points to some a new perspective which is not been revealed elsewhere that is what will add to the novelty of or the importance or the effectivity of the research. The next thing which we want to really know is what can we feasibly act upon, remember in community based participatory action research we are looking for sustainability. So, the feasibility and practicality of community action has to be balanced right in the beginning, we cannot be very ambitious and think about doing things which cannot be scaled up or continued without external support. What are the rough geographic boundaries for that because the very word community means it is bound by certain geographic boundaries or certain other criteria. So, what are these the geographic boundaries where we would like to engage participants and take action, the community may not agree with our definition of community boundaries often we have problems according to the administrative boundaries.

So, build in time to discuss and adjust these boundaries. So, these seem to be simple steps, but they are very important steps in design and implementation of the research project. The second step is partner or community engagement, who will be our partners which are the community that we are looking for that we need to identify the action research partners and invite them to collaborate. It is not enough to assume that as soon as we approach them all the community members will be very willing or the community would be very receptive of our ideas and participate and collaborate. So, we this stage of partner engagement or community engagement also involves a lot of time, a lot of thought and a lot of action.

How do we do this? We identify on the basis of the issue and geography, who are the key stakeholders in this issue might not be the whole of the community, might be certain action groups, certain sub categories of people living in the might be the marginalized, might be the most vulnerable. So, they would be the key stakeholders of these who will be collaborate with. Again feasibility, action, continuation are important considerations to identify those whom with whom with we will collaborate. Now, will this group address the different constituents of the community? Now, we have chosen a group, but we need to also take into consideration that whatever they say are representing the issues or concerns of the different constituents of the community. That is why we always focus on gender representation, on representation of the marginalized of the gender of representation of those who have been hard to reach.

These are important considerations in selection. What is the level of participation expected in the different elements of the process? See when we take women perhaps or perhaps we talk of domestic violence. So, will they be able to participate in the entire process? Will all of them participate to the same extent? Who are the people who will do more? Who are the people who will do less? Are the people who will do more necessarily representative of those who are experiencing domestic violence? So, these are issues which we also need to identify the beginning. Clarify each participant's expectation of the process. When you ask a person to collaborate or to participate in your process, you must be very clear.

They must be very clear also that what are they in for. False expectations, false promises are not to be made at any point. So, in what way we are asking them to contribute? How can they contribute or what do they think they can contribute? What is their interest? Why do they have this interest? What resources do they have available? It is very clear to actually detail these expectations, these assets, these resources, these potentials in the beginning. So, that we have no misgivings or misunderstandings at a later stage. Having done so, having identified the community, having identified the issue, having identified the participants or the collaborators, we next move into the data collection process.

In the data collection process as we have been emphasizing upon, we first need the research question very clearly mentioned. For that sometimes we also need to refine the research questions at this stage before going in for the data collection tools. Once we have refined and finalized our research question, we then choose and implement the data collection methods.

We have discussed that there are several methods for data collection. So, we choose them, choose from among them and identify the key partners.

So, based on the issue and participants, do you need to refine or change your specific research questions? The answer comes from the first two steps. Second, who will you collect data from? Who has specific knowledge of this particular topic? This also needs to be found out. Third, how many participants will you have? What is a good sample to be representative? If it is qualitative, we have the saturation principle. If there is another element in it, we need to have a good sample. Next how will these findings be utilized? How do you anticipate that these findings will be used? Will it be advocacy to the policy makers? Will it be advocacy for the programmers? Do you want to develop intervention tools for the community itself? So, we must be clear because it is the community who will be taking part and doing these processes.

Who will be your target audience for the research findings? Now, you find out something to convert it into action. We need some, we need to disseminate it or spread it amongst certain groups of people. It might be the community, it might be the other stakeholders. So, one needs to also clarify who will be the target audience. What specific data? Then comes the all important question.

What specific data do you need to answer the research question? We need not collect unnecessary data just because it is a fanciful wish list. A combination of community knowledge and administrative data, sometimes we do have some data available reports records etcetera along with that the community can give their knowledge inputs. For example, perception of safety by the community compared with the crime statistics we have. So, we have two sources of data here and this is the sort of data perhaps you need to answer a research question. Why is crime perpetuating or escalating in the community? The next question which we ask is what is already available? Because again more often than not we go about replicating data which is already there.

So, what is already available and what needs to be collected or what can you collect depending upon the practicality of the situation. Then will the data you collect answer your research question and give you some idea for action because that is the sort of data which we need not only the answer to the research question, but also of what to do with this what the community feels should be done about it. That is also an important step or type of data or it should be inbuilt into the data collecting mechanism method and tool. So, there are various methods for data collection which have been used in PAR. Focus groups you all know about focus group discussions, participant observation and field notes this too has been discussed.

Interviews we sometimes also just like role plays and feedback thereafter one can conduct theaters, one can look into personal family or community diaries, one can maintain them, one can maintain ask community members some selected members to maintain personal logs about

their experiences. Data can be collected through questionnaires and surveys we can have community meetings and gather data thereby. We can do resource mapping, we can do problem identification and visioning with the community and we can do transect walks some of these you have already done, some you will be discussed in subsequent slides and lectures. So, besides there are some other data also which we commonly do not think of as data, but there are testimonials they can be analyzed. There are timelines analysis of timelines particularly for migrate migrant related activities for seasonal activities timeline analysis comes in very handy.

Public dialogues engagement with state authorities investors other events and processes to reflect upon. You can even look at minutes of the meeting you know that is a good data source you can just analyze it. Use of media community exchange using multimedia as inputs for these or creating from these. So, re strategizing and documenting these are various methods for data collection and which have been used. But basically the data collection tools and techniques used for participatory action involve three types.

One is space related these are maps social maps, resource maps, mobility maps, transect maps simple map is a simple visual display, but it is very interesting and it offers a wealth of information if done properly. Then comes the time related data collection tools the timelines, time trends, seasonal diagrams, historical maps are very important. And there are some other relational tools like Venn diagrams, rankings, pair rankings, matrix rankings etcetera. So, let us come to a very commonly used data collection tool that of maps and transect maps. Transsect maps actually are maps of the main areas or zones in a community which is derived from systemic works and observation.

It is not just haphazardly done there is a system a procedure and a protocol of doing a transect work. They compare the main features resources uses and problems of different zones or perhaps the relevant as relevant to the issue which we are studying. Transsects are basically crossing lines, lines which go across these can be constructed by walking in a line through an area with key informants from the community. So, you are a outsider take a group of one or two people two or three people with you the community people and start walking directly along a transect line directly observing and noting specific features and factors and talking to people whom you meet on the way just the way we do a walk. Examples of issues that can be covered in a transect include water sanitation, food availability and access, occupational hazards and risks etcetera.

So, you see transect walk is a group exercise it is not to be done singularly. It is a group exercise that entails walking between points to intentionally cross or transect a community. You are particularly choosing a particular route where you want to observe certain things which are happening in the community. The group explores resources both environmental and social resources conditions and systems by what they observe, they ask, they listen they look and

they produce a transect diagram in the end. Now, the specific information may be collected to reveal land use, hazards, vulnerabilities, capacities depending upon what you are studying.

So, conducting a transect walk as I said it is not a haphazard walk, it has to follow a certain pattern or steps. First is preparation for the transect you choose the route select the route through a chosen area. It can be the whole village, it can be part of a village, it can be whatever. The route chosen should pass through as many of the different physical and physical areas and the people from different social categories of the community. If the geographic location is large you select multiple transects, then you choose a group of community volunteers members who will walk with you.

Step 2 to these group you introduce why you are going for this walk tell them why. The purpose of the walk is clarified to focus the group's observations and conversations on a particular problem of the community. Suppose you are going to look for water sanitation conditions, tell them what you are going for, what they are supposed to look for, what they are supposed to talk about etcetera. Opportunities to gather rich and varied data should be utilized flexibly and spontaneously. It mean these things are we do have like just like a semi structured guide you have a guide, but you can go beyond if you find something new you can always note that down ask about it etcetera.

One can vary the route and time of the walk. It is not necessary that you have to walk in a particular during the office hours you can do it early in the day, you can do it at night. It actually depends upon the contextual information. If you want something which happens at night want to look at something which happens at night you have to do that at night. If appropriate you can take a camera or a video recorder to capture observations and interviews along the route.

And participants must be reminded to take relevant notes of what they see and hear along the walk. So, along with you they too hear observe and note it down. Now, during the transect walk with the chosen group of community members the key informants the group walk along the route stopping from time to time you note down the observations. You just cannot keep on walking and writing. So, you have to stop from time to time.

Some of the group members must keep a record of all the vital information and some are engaged in drawing a map, selecting the key features or resources as we have encountered. Now, group must always be told to ask relevant questions. For example, for water sanitation one can ask do you see human feces lying in the open by the roadside or fields etcetera. What relevant resources are available like sanitary latrines in household, schools, anangwari centres etcetera. Condition of these resources are there resources which are not being used. So, identify and talk to people along the way to ask what has been done in the village by Swachh Bharatmishan, what are the relevant activity has been undertaken by other organizations individuals or groups, what have been the problems in making the village open defecation free, what have been the problems in providing safe water. So, these are some indicative questions which can be asked during a transect walk for stimulating discussions and getting their opinions. So, this is a example of a transect walk which was conducted in Godi Para for water sanitation identification. Now, conducting a transect walk does not end up only with the walk. Then you have to debrief and learn look think plan after the work the group is requested to sit down in a suitable place the people with whom you have been walking you sit together with them and compile a diagram or table of the main features observed.

We have just shown you a map. So, you can see the legend it is wonderfully outlined what are the main features. Every member of the group should be should contribute they should be encouraged to contribute what have they seen I mean each one might have seen something which the other has not. So, it is very important that everyone participates. The diagram or table serves as a guide for discussion and identifying the learning points with questions like what new things were discovered, did anything surprise you, what types of relevant resources appear to be most used, which are the least used, why do you think they are not used, what patterns did you see, what opportunities has the transect walk given to you or revealed for you, how do they relate to this program. So, the transect map or the diagram can be paired with other tools other community maps you can triangulate the data, you can identify certain patterns.

It can also be used as analysis exercises like you can use it with the seasonal calendar, you can use it with historical timelines to highlight changes in the patterns across time. So, this was this is just an example of a transect walk conducted in market place in health promotion market places are taken as healthy settings. So, the health status of any setting is determined by the quality of the environmental conditions and risk factors. So, these are some of the pictures of market places through which transect walks have been conducted and these are the pictures which have come across. So, photo documentation was done in food markets, food markets usually also offer street vendor foods.

So, they are important sources of ready to eat foods which are accessible and affordable for even the lowest income members of the family. Therefore, food markets they are good settings for maintaining health and nutritional status, but we know that disease outbreaks are transmitted through food and live animals. So, these are food safety and occupational health issues and in order to identify which risks are operating in which setting transect walks are lovely ways to gather information. And even vendor health is an important issue. So, vendors may be suffering from a disease that is transmitted through food or is suffering from symptoms of food borne disease particularly, if they suffer from cholera, hepatitis A, typhoid or diarrhea within previous few hours the vendor should not handle ready to eat food. So, these are handling issues food problems like smoking, blowing the nose while handling food, uncovered cuts or sows, touching food with unclean utensils etcetera all these are risks to food safety and to the market place. So, when we go through a transect in the market place, we can have a checklist to look at the basic infrastructures to promote sanitation like toilet facilities, hand washing facilities, water supplies, walls, floors whether they are easily washable, how what is the condition of the drainage. Then comes the waste disposal patterns, how is solid waste disposed whether it is stored in suitably closed containers, disposed regularly, regularly, frequency of removal etcetera. Disposal of liquid wastes, market areas in food are protected whether that is protected from rodents, insects, other pests and the hygiene gradient. The hygiene gradient says that in a market cooked and ready to eat foods must be in the I mean in the most important area is here, this is the most hygienic area which should be maintained followed by dry food, dairy products, fruits and vegetables, raw meat, raw fish, raw poultry and it should be separated in this this is the gradient which has to be maintained.

Live animals and food waste, food waste transmits maximum then comes live animals, then comes raw poultry, then comes raw fish. So, this is located at a distance from the ready to eat that is how it should be. All raw meat, fish, poultry etcetera protected from sunlight and heat and live animals and stored raw foods should be separated from cooked. So, we know these we can do a transect with a checklist in hand and find out what is the situation of the market place in this regard. And there is a checklist of vendor practices also like separate equipment and utensils etcetera, vendor practices, hand washing, ready to eat food is cooked thoroughly, cooked food is not left at room temperature for more than 2 hours.

So, this is just to give you an idea that a simple transect work with these checklists along a market place can give wonderful information about the risks which exist in a market place which promote food borne infections and impede or impact on vendor health and consumer health. So, this information can come in very well for good qualitative evidence to generate programs or make architectural corrections or take appropriate steps for the market places. So, basically in community participation or to foster community participation for CBPAR vital steps are first designing. For before designing some very important questions need to be asked the researcher sits and tries to understand these questions as much as possible before embarking into the research process itself. Second is partner or community engagement, there are steps of doing it and there are steps of doing it and carefully doing it.

So, that the process does not fail by the ways, half way through the project, then comes the implementation, it comes monitoring and finally, evaluation. Throughout the process various methods of data collection can be used we have discussed only one method here in subsequent lectures we will be discussing a few more methods which involve participatory collection of data by the community facilitated by the expert. Now, you see because these are very simple ways of collecting data the displays or the reporting is also simple it is visual it is diagrammatic. So, that lay people also understand what is going wrong, what are the ways by which things can be corrected and which are the areas which need correction or modification. So, data collection in participatory research uses a wide range of, space-related we have talked

about maps, time-related, we have talked about timelines which will be discussed in further details later on and relation related your Venn diagrams, your rankings, and other such methods they are not any less scientific.

They are very valid scientific methods which can be used to and by the community to collect data, to understand data, to analyze data and to create an action plan based on the data which they have collected by themselves and analyzed by themselves identified the problems through them by themselves. So, this is a very valid method and more such methods will be discussed in subsequent lectures. So, these were the references and thank you very much.