

One Health Application in Management of Zoonotic Diseases
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Module - 8
Lecture - 15
Community Engagement for Zoonotic Disease Control in Humans and Animals through One Health

Good afternoon, everyone. This is Dr. Simmi Tiwari. I am Joint Director and heading the Division of Zoonotic Diseases at National Centre for Disease Control which is the apex organisation for Ministry of Health and Family Welfare for all technical perspectives with outbreak investigations and other non-communicable diseases as well.

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**COMMUNITY PARTICIPATION IN
“ONE HEALTH”**



So, welcome to this lecture session on the community participation. We all know that community participation is the key strategy to achieve many of the stated health goals and objectives, not only at the country level but at the global level. So, we know that by now you might have learnt a lot about the One Health and the core domains of One Health. So, today we will be learning about what exactly is the community participation.

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Learning Objectives

1. What is community Participation?
2. Why community Participation is required?
3. Principles of Community Participation
4. Levels of Community Participation
5. Stakeholders for Community Participation
6. Theories of Community Participation
7. Community Participation and One Health

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So, these are the learning objects we will be learning on few of the key aspects about the community participation. What is community participation known as? Why community participation is required? What are the principles of community participation? What are the different levels where we observe and we implement the community participation strategies? Who all are the stakeholders for community participation? What are the different theories given as of now for the community participation aspects? And what exactly we understand by the principle of community participation in One Health?

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WHAT IS COMMUNITY PARTICIPATION?

Charles Abrams defines **community Participation** as "The theory that the local community should be given an active role in programs and improvements directly affecting it"

WHO has defined community engagement as "**a process of developing relationships that enable stakeholders to work together to address health-related issues and promote well-being to achieve positive health impact and outcomes**"



"The Myth that the affected population is too shocked and helpless to take responsibility for their own survival is suspended by the reality that on the contrary many find new strength during an emergency"
(Goyet 1999)

So, if we look at the community participation, there are many definitions which has been given, and this is not a not an activity but this is an approach, this is a principle to achieve the stated goals and objectives of our many of the challenges, not only limited to the health but other social issues as well. Charles Abrams has defined the community participation as the theory that the local community should be given an active role in all programs and policies, and so that they can lead to a direct improvement which all the problems which are affecting a community directly.

And WHO is also given a definition for the community participation or the community engagement as a process of developing relationships that enable stakeholders to work together to address health related issues and promote well-being to achieve positive health impact and the outcomes. There are many myths which is stated by Goyet in way back 1999, the myths that the affected population is too shocked and helpless to take responsibility for their own survival is suspended by the reality that on the contrary, many find new strengths during an emergency.

So, this is a paradox for the community participation. So, if we overall look at the community participation, it is an enabling exercise to achieve the stated goals and objectives with an active participation of the community in which or that particular problem is existing.

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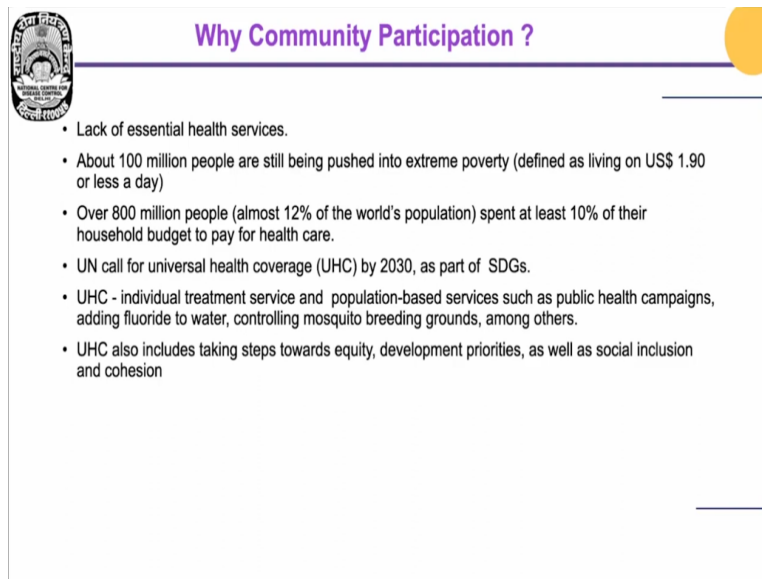
Community Participation

- ✓Community participation is the active engagement of the people in solving their own problem.
- ✓Community participation is essential for the success of all development and social change initiatives.
- ✓In public health, community participation refers to efforts that promote a mutual exchange of information, ideas and resources between the community members and the health departments.

So, what is community participation in broader sense? We understand by community participation is the active engagement of all the people for solving their own problems. It is

essential for the success of all development and social changes initiatives. And in public health, it refers to the efforts that promote a mutual exchange of information, understanding, ideas and also sharing of the resources between the community members and the health department. So, this is in a broader sense what we understand by the community participation or the community engagement.

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The slide features a purple header with the title "Why Community Participation ?" and a yellow circular graphic on the right. On the left, there is a circular emblem of the Government of India. The main content consists of a bulleted list of facts and goals related to health services and poverty.

- Lack of essential health services.
- About 100 million people are still being pushed into extreme poverty (defined as living on US\$ 1.90 or less a day)
- Over 800 million people (almost 12% of the world's population) spent at least 10% of their household budget to pay for health care.
- UN call for universal health coverage (UHC) by 2030, as part of SDGs.
- UHC - individual treatment service and population-based services such as public health campaigns, adding fluoride to water, controlling mosquito breeding grounds, among others.
- UHC also includes taking steps towards equity, development priorities, as well as social inclusion and cohesion

So, why community participation is essential? Why community participation's approach that has been brought to achieve the health objective? That we all know that half of the world population still have lack of essential health services. And we know that more than 100 people, they are still having about more than 100 million people, they are still being pushed into the extreme poverty because of excessive health care expenditure and they have to bear this expenditure on health care services out of their pocket.

So, what is a poverty defined as living on US dollar 1.9 or less in a day. As per the UN data, more than 800 million people that almost constitute more than 12% of the world's population, they spend at least 10% of their household budget to pay for the health care, that means the out of pocket expenditure. And this level of healthcare expenditure that lead to the catastrophic health event and in turn start a vicious circle of poverty.

Poverty leads to the ill health, ill health burdens on the pockets of the poor people, and then again they are pushed back into the poverty circle and then again a cycle of ill health starts. So, this is a kind of vicious circle for which we need to involve the community to achieve the objectives. And there is a United Nations call for achieving the universal health coverage by 2030 and this is also a part of sustainable development goals in which the community participation is also one of the stated approaches to achieve these goals by 2030.

What do we mean by universal health care coverage? It is not only to ensure the individual treatment services but also to have a population-based services such as public health campaigns like a simple problem of adding fluoride content to water to address the fluorosis problem and to look after the vector bond diseases like malaria and look out how to have the community participation in controlling the mosquito breeding grounds.

So, these are few of the examples that why community participation is required. And universal health coverage which is also entails the importance of community participation also includes taking steps towards equity, means all the healthcare services are available to all the strata of the community at affordable prices and all the health services are accessible to all, and also to develop the priorities as well as social inclusion and cohesion.

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PRINCIPLES OF COMMUNITY PARTICIPATION

Trust: Trust can be strengthened through face-to-face interactions , co-planning of agendas and actions, and co-decision-making.

Accessibility: Lack of accessibility is a negative determinant of engagement especially as it is related to geographic, linguistic, cultural and socioeconomic access

Contextualization: Understanding what is of value to the community and working on the community's perception of value leads to stronger engagement

Equity: Equity is a key principle to drive effective community engagement processes, and initiatives that successfully address the health equity agenda are closely linked to cogent engagement practices

Transparency: Transparency is essential for trust and can promote other enabling factors required for effective community engagement

Autonomy: Community engagement develops autonomous and empowered individuals and communities at all levels. It can be utilized as a powerful approach to influence policy and advocate for change

There are few principles laid down for a successful community participation which includes that there should be a mutual trust. If the trust is not there, we cannot establish a successful model of community participation. We should be looking at the accessibility. If we are not ensuring the accessibility of the particular healthcare services, then we cannot ask a community to participate in solving a particular healthcare issue.

Then contextualisation is an important, that is to understanding what is the value to the community and working on the community's perception or value that leads to a better engagement with the community stakeholders and community people. Equity is a key principle to derive the effective community engagement process. The equity should be an inbuilt principle of any kind of community modelling exercises so that we can effectively implement a kind of community participation model to address a particular healthcare issue.

It successfully addresses and it should be a closely linked to the congenit engagement practices, means equity until and unless we are not bringing equity in our key program designs, healthcare services are equitably distributed to all the strata of the community. We are not addressing the community participation in a justifiable manner. Next important principle is the transparency which is essential for trust building and this should be promoted for having the other enabling factors which are required for the effective community engagement exercises.

Autonomy and freedom, that is also one of the important principles for effective community participation. It develops autonomous and empowered individuals. If we give the autonomy, if we bring the autonomy in the decision making in any kind of community participation model and it should be utilised as a powerful approach to influence even the policy drivers and advocacy for the change.

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Level of Community Participation



Level 1. Community-oriented: the community is informed and mobilized to participate in addressing immediate short-term concerns with strong external support

Level 2. Community-based: the community is consulted and involved to improve access to health services and programmes by locating interventions inside the community with some external support

Level 3. Community-managed: there is collaboration with leaders of the community to enable priority settings and decisions from the people themselves with or without external support of partners.

Level 4. Community-owned: community assets are fully mobilized and the community is empowered to develop systems for self-governance, establish and set priorities, implement interventions and develop sustainable mechanisms for health promotion with partners and external support groups as part of a network.

There are different levels for the community participation, level 1 to level 4. What is level 1? Level 1 is only community oriented in which we just inform the community about a particular health problem and we try to mobilise by the various theories, various interventions so that they come ahead for participating and in addressing the immediate health issues or immediate any kind of social issues.

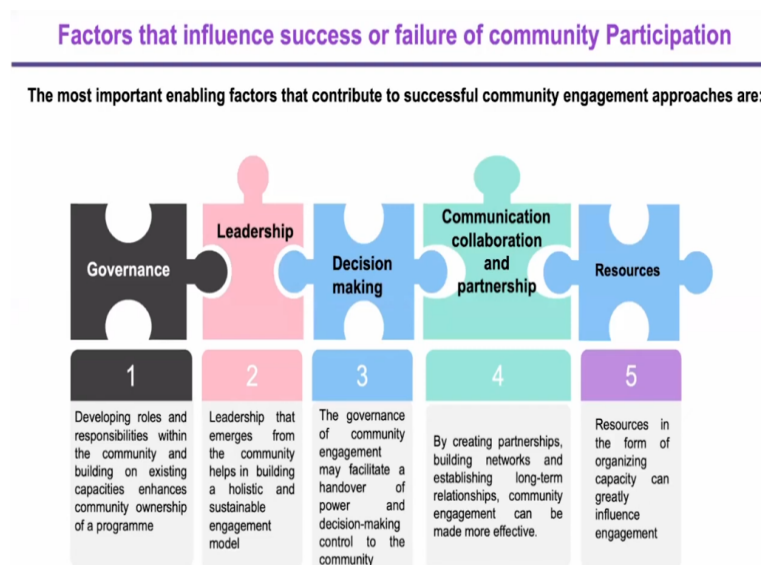
So, this kind of community oriented level 1 community engagement is utilised to address the short-term concerns, but it requires a strong external support if we want to mobilise the community just by informing there. Level 2 is community based in which we involve the community in the consultation process and we involve them to improve the particular condition, not only related to health but other social issues as well.

And we involve the community in the various programs by involving them in locating interventions that where we need to implement a particular strategy or where we need to intervene inside the community and the level 2 of community participation that requires a little external support to be successful. Now level 3 is all the interventions wherein we have a greater involvement of community and the particular intervention that is wholly managed by a community itself.

There is an active collaboration with the leaders of the community to enable priority settings and also involving them, decisions from the people themselves with or without any kind of external support of partners. So, at the level 3, we see a greater engagement of community coming ahead to manage their own issues, to manage their own health problems or any kind of social issues.

Level 4 is to the next level wherein community owned itself a particular problem and they are fully mobilised and the community is empowered enough to develop their own systems for self-governance to establish and set priorities and to the acquired intervention to address that particular problem. So, this kind of level 4 community engagement is in a true sense a community participation wherein community owns a problem and also comes up with self-sustainable solutions.

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So, there are many factors which influence the success or failure of a community participation. Number 1 is the governance, developing roles and responsibilities within the community and building on existing capacities to enhance the community participant leadership. Third one is an important decision making powers in the community, to what extent we are giving a decision making powers to the community leaders or the community itself.

Fourth is to establish an effective communication and collaboration and partnership among the various groups of the community. So, this is also one of the very important factors to have a

successful community engagement to have a transparent communication and collaborative mechanism. And fifth which is very important that we should be having and ensuring the available resources.

We should be ensuring the availability of particular services and then only we can expect that a community is actively participating in addressing a particular health problem or any kind of social issues.

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So, if we look at the stakeholders of community participation, there are many stakeholders. Stakeholder is a single person; it could be a group or it can be an organisation involved in or affected by the development and completion of a program or policy. To list few of the stakeholders although there may be an n number of lists of the stakeholders for community participation, it depends how we design a kind of need assessment strategy for having, for designing a community participation program for a particular health issue or any other problem.

So, to list few are the general population is one of the important that do we mean by the community is the general population only; but within the general population, we can have the targeted approaches and we can outline few of the specific cohorts which need to be targeted for a particular health problem and accordingly we device our strategies for community participation models.

And secondly, we have in the community, many of the donor organisations or the philanthropic organisations. There may be many field functionaries of all the sectors which need to be involved, health sector, veterinary sector, Panchayati Raj organisations or other state actors and non-state actors. Political leaders, they are very important group for the successful community participation exercises.

And local influencers, they may be political or they may be a social worker also. By virtue of their face value, they play an important role in community participation models. And religious leaders, they are a very important and they have a very important role in building a successful community participation. Local authorities: Local authorities means local self-government bodies, urban local bodies or the rural local bodies, Panchayati Raj institutions and their members, gram panchayats, Pradhan and all the local self-government authorities.

Likewise, we have very important community participation stakeholders in the form of non-government organisations, community-based organisations and many of the self-help groups which are active in the community, they play an important stakeholder in exercising the important community participation. Apart from these, the industry and the business communities, a local vendor, local shopkeeper or a big industry or big factory malik, owner of a factory, so, they also, a very important target group for involving in the community participation exercises and to address a particular health problem.

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Theoretical models for community engagement

- **Behaviour change theories**

- Self-determination theory
- Behaviour change ball-social networks of relevant stakeholders in relation to health
- Community-based system dynamics- Group Model Building by facilitating teamwork, using visual representations and scripts, and identifying participants through gatekeepers, to truly engage the community in solving problems using participatory actions

- **Participatory Action Research**

- Jointly analyse and reflect on issues
- Co-design and co-create projects to reduce health inequities
- Incorporating participatory monitoring and evaluation
- PAR self-organization of communities and contributes to the development of more democratically active citizens

There are many theoretical models which has been given for the community engagement. I will be reading a few. There are behavioural change theories which have been given like self-determination theory. In this theory, it is stated that this is a self-motivation of a particular community or a particular group of individuals that they determine to the extent what changes are required to address a particular health problem or particular social issues in their defined geographical area.

Similarly, there is a behavioural change ball by which we mean to have some kind of social networks are existing of relevant stakeholders in relation to health. And these social networks, they collaborate and communicate within themselves and they lead a behavioural change movement in a particular society or community. And then community-based system dynamics; this is a group model building by facilitating the teamwork.

It needs a project head to be there to address this kind of, to intervene in community participation by this theory or this theoretical model. It uses many visual representations and scripts are laid down and we identify the participants through gatekeepers and then we truly engage the community in solving problems in a strategic manner and using the participatory learning actions by involving or by actively engaging the community cohorts.

Second important model is the participatory action research wherein we come forward, we design a particular participatory action research model and we involve the community members to jointly analyse and to reflect and to chart down few of the issues which are a bottleneck to meet a health outcome. Then we go ahead with involvement of community members or stakeholders to co-design and co-create the projects to reduce or to address many of the health inequities.

And further, we incorporate the participatory monitoring and evaluation and this participatory monitoring and evaluation, this is an inbuilt design in the community engagement exercise. Participatory action research uses the self-organisation of communities, so, this participatory action research model is a very powerful model and it has been successfully implemented in addressing many of the health related issues like enhancing utilisation of contraceptives in resistant pockets of the community, to address or to improve the vaccination coverage in the resistance pockets, to address many of the issues.

So, this participatory action research is basically a qualitative model of research wherein we address the why and how questions and then we involve the community that how we can address these issues by enabling community environment.

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Community participation is relevant in many different sectors. To name a few are the community participation exercises in the urban development. Then secondly, in the designing and developing many of the educational programs, many of the healthcare sectors issues that has been successfully addressed by the community participation model. Agriculture sector, then developing gender parity, then addressing various environmental issues and sustainable environmental problem in climate and health and then the infrastructure development or we know developing the smart cities in today's concept.

So, these are the few, but there may be many other sectors wherein community participation is important.

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So, now, what are the steps of the community participation? There are 6 steps I have laid down in this particular slide. First and foremost step is that we should be knowing about our problem and then we set our research question and set the goals and objectives that what we want to achieve out of a community participation model.

Second is we strategically identify the gaps and bottlenecks and we undertake various types of studies, behavioural studies, anthropological studies and a very popular type of study is the knowledge attitude and practice, that is the KAP studies to understand the existing mechanisms,

to understand the existing problems and their behaviour of a particular community towards that problem.

And why they behave in a certain designed fashion? Why they are behaving in a certain manner? Why that particular health condition or a particular social problem is lying? Just because of community behaviour and what are the various factors driving a particular behaviour of a community? And we identify the gap to know what are the different roles of the existing stakeholders in that particular community to address that issue.

And then we lay out and then we come out with a strategic design of a community model and also at the same time while we are laying out the strategies and we are chalking out our actions to be undertaken, we identify the resources in terms of all the money, man and material that what exactly we would be requiring to implement a community participation model in a geography, in a particular geography to address a particular issue.

Then we undertake required trainings and capacity building exercises with the community partners and leaders and then we implement and reassess and then we review and redesign the community participation model and then we go on. If we look at that we are able to achieve the goals and objectives what we have set in the beginning, then we go on to have a maintenance and consolidation strategy.

Community participation, it is not a one-time exercise; it is a continuous process and once we are implementing a community participation model, we should ensure that a particular exercise is sustainable, rather it should be self-sustainable.

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COMMUNITY PARTICIPATION IN HEALTH CARE SECTOR

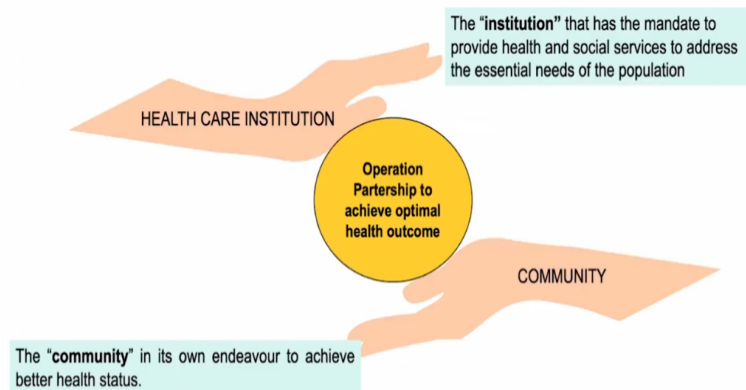
Now few examples I will be giving in the healthcare sector.

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COMMUNITY PARTICIPATION IN HEALTH CARE

The term community Participation in health care points to the idea of partnership and shared responsibility with health services

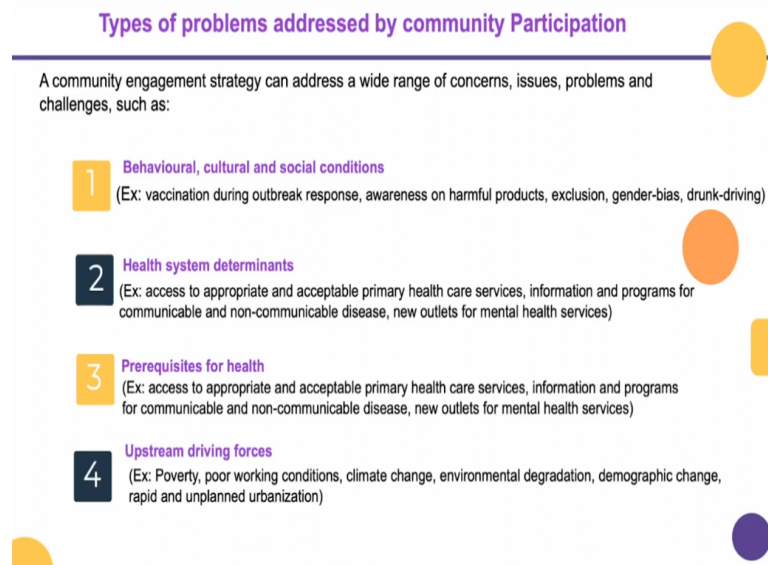


So, the term community participation in healthcare points to the idea of partnership and shared responsibility with the health services. If I want to give some kind of the community participation in healthcare, I have already spoken about the improving coverage of utilisation of contraceptive among the reproductive age group of the females as well as male contraception usage.

And also one of the important example which is again and again given in the health care setting is the looking out the breaking the barriers of immunization acceptance. There may be many of the resistant pockets where the polio was not accepted at one stage; but through successful community participation model, we have been able to break the barriers and we have been able to address the bottlenecks in adopting the polio immunisation in the resistant pocket.

There are many other examples like coverage and improving the access, improving the coverage of antenatal care services and improving the coverage of institutional deliveries by successful community participation model. So, these are the few examples wherein community is a general community and another spectrum of the community participation is the health care provider.

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So, these are the types of problems which are addressed through community participation like behavioural, cultural and social conditions. I have already given a few of the examples. And second, for example, in the behavioural, culture and social conditions, we group the vaccinations during outbreak response. Awareness on harmful products like tobacco, alcohol, smoking, exclusion; exclusion like some kind of transgender communities, they are excluded from the society; gender bias and drunk driving.

So, these are the behavioural, cultural and social conditions which are successfully addressed by the community participation. Then health system determinants like access to appropriate and

acceptable primary health care services information and programs for communicable as well as non-communicable diseases. Thirdly is the prerequisite for health like access to appropriate and acceptable primary health care services information and programs for communicable and non-communicable diseases.

And fourth is the upstream driving forces like to address the poverty issues, to address the poor working conditions, climate change and health, environmental degradation that led to many of the emergences and re-emergence of the infections. Then demographic changes, epidemiological shift in many of the health problems; rapid and unplanned urbanization which can lead to adverse impact on the health of a community. So, these are the type of problems which are addressed by the community participation.

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Level wise, we address the community in the various setting and we identify who are the, which type of groups they form an immediate point of contact for addressing a particular health problem or particular social issue through community engagement or participation. At first and foremost, community is the family that constitute a fundamental community; the main provider of healthcare and have a fundamental role in the health promotion.

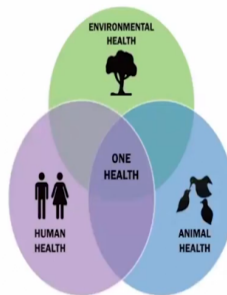
Secondly, the community, we do understand by having our close friends and neighbours. And second, the larger, all people in and around the society or where do we live in a particular

community. So, this is a different mode of defining various levels of community. And we can have a particular strategy built by having a look on these groups of community and accordingly we can design our strategy.

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Community Participation in One Health



Now coming to the community participation in One Health, we have already learnt a lot about the One Health. We know that what is One Health.

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WHAT IS ONE HEALTH?



As defined by WHO 'One Health' is an integrated, unifying approach to balance and optimize the health of people, animals and the environment. It is particularly important to prevent, predict, detect, and respond to global health threats such as the COVID-19 pandemic.



One Health' is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes. The 'One Health' approach is critical to addressing health threats in the animal, human and environment interface.

It is defined by WHO. It is an integrated unifying approach to balance and optimising the health of people, animal and the environment. It is particularly important to prevent, predict, detect and

respond to the global health threats such as we all know about the COVID-19 pandemic; but to name a few other are the Nipah, Ebola and many of the dreaded infectious diseases which require the One Health approach.

So, One Health approach, to design and implement the program policies, legislation and research wherein we envy such the involvement of multiple sectors and communities who intend to work together and to achieve the better health outcomes than before. It is critical to address health threats in the animal, human and environmental interface. So, One Health is a globally acclaimed approach in today's scenario wherein we are facing a double edged sword. We are facing the rising burden of communicable as well as non-communicable diseases on one or the other spectrum. So, One Health approach that addresses both the things.

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The slide features a title bar with a purple border and a yellow circle on the right. The title "ONE HEALTH - HISTORICAL PERSPECTIVES" is centered in purple. Below the title, a list of historical milestones is presented in bullet points. The slide is decorated with a yellow circle on the right and a yellow circle on the left. The "HEALTH FOR ALL" logo is positioned in the bottom right corner.

- **Hippocrates**, Greek physician, wrote "Airs, Waters, and Places" – the harbinger of One Health Concept
- 19th century **Dr Rudolf Virchow**- 'Between animal and human medicine there is no dividing line—nor should there be.
- **Dr William Osler**- studied the links between human and animal health
- **Indian Scenario**- Bhore Committee Constituted in 1946- suggested that "**health and development are interdependent**"
- 2004: Human and animal health experts at a symposium convened by Wildlife Conservation Society extends the concept of 'One Medicine' to 'One Health, One World'

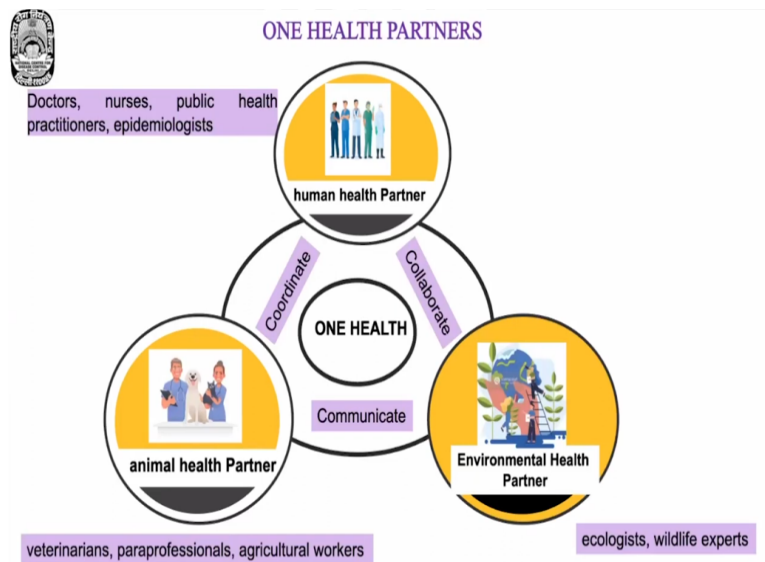
HEALTH FOR ALL

If we look at the historical perspectives, I think I have already taught in one of the few slides, One Health historical perspectives way back in the hypocrites wrote that airs, waters and places, they are the harbinger of One Health concept. And in the nineteenth century, Dr. Rudolf Virchow has written between animal and human medicine, there is no dividing line and nor there should be.

And Dr. William Osler studied the link between human and animal health. And way back in the Bhore Committee in 1946, they have suggested that health and development, they are

interdependent and nothing can be partly addressed. They are linked together and there should be a strong inter-sectoral and inter-sector coordination in communication. And in 2004, human and animal health expert at a symposium convened by wildlife conservation society, they extended the concept of One Medicine to One Health and One World. So, these are all the historical aspects and perspectives of One Health.

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In the One Health, we have a role of human health partner basically and secondly the animal health partner and third is the environmental health. So, there are many stakeholders of One Health but to name, these 3 sectors are the key sectors for the active community participation in One Health scenario.

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ONE HEALTH APPROACH



There are core domains of One Health which are defined as 4 core domains: prevention of zoonotic diseases in animals and people; food, safety and security; addressing the anti-microbial resistance and conservation of biodiversity and addressing the lands use changes. One Health is not only limited to the communicable diseases or these 4 domains, but it expands its arms to address the chronic diseases, mental health and occupational health as well.

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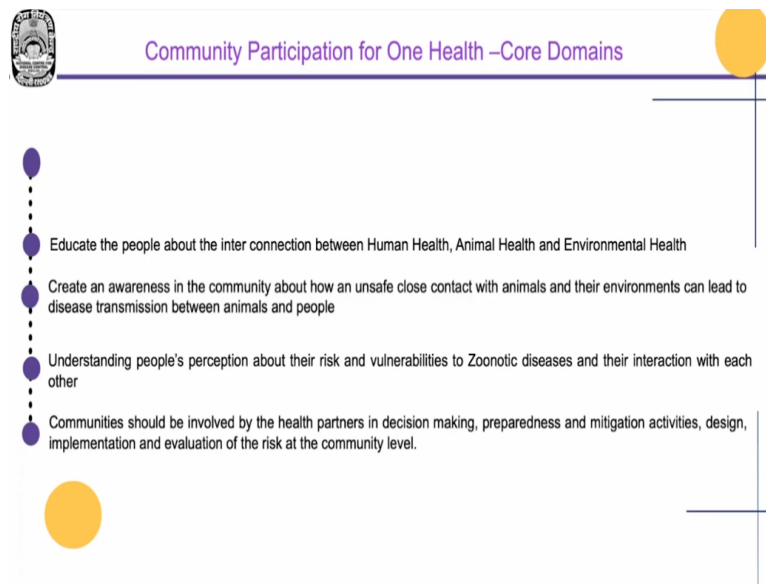
Key Stakeholders for One Health



COMMUNITY PARTICIPATION

So, these are the key stakeholders in the previous lectures. We have already covered these key stakeholders. We know that health department, veterinary and the forest department and apart from these, the climate department, they are all key stakeholders of One Health.

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So, how we address the community participation for One Health? We need to educate the people about the interconnection between the human health, animal health and environmental health. We need to create an awareness community that how an unsafe close contact with the animals and their environment can lead to disease transmission between the animals and people, and we need to understand the people's perception about their risk and vulnerabilities to the zoonotic diseases and their interaction with each other.

And if we want to address these core domains of One Health by committee participation as we understood by the previous slides, we should involve the communities by having them in active decision making processes to have their understanding that what preparedness and mitigation activities will be effective in addressing those issues within their cultural domains and which is within their cultural beliefs.

And also we should be involving the communities in designing, implementation and evaluation of the risk at the community level. And then only, all these core domains of One Health can be addressed through a successful community participation models.

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KEY MESSAGES FOR COMMUNITY TO ADDRESS AMR AND FOOD SAFETY

ANTI MICROBIAL RESISTANCE:

- Excessive and unnecessary use of for people, animals, or plants—can cause side effects and contribute to antimicrobial resistance.
- Avoid contaminating the environment (water, soil) with Human and animal waste
- Avoid the use of antibiotics and antifungals as pesticides on plants or crops
- Avoid disposing the Pharmaceutical manufacturing waste in the environment
- Avoid direct or indirect contact with fecal waste (poop) that may carry traces of previously consumed antibiotics, antifungals, and antimicrobial-resistant germs.

FOOD SAFETY MEASURES:

- Eating or drinking unsafe food that are contaminated with feces from an infected animal can lead to illness in humans and animals
- Example of unsafe food with high chances of contamination are:
 - unpasteurized (raw) milk
 - undercooked meat or eggs,
 - raw fruits and vegetables
- Drinking or coming in contact with water that has been contaminated with feces from an infected animal.
- Importance of cleaning hands, cooking utensils, and surfaces, separate raw meat from other foods, cook foods to safe temperatures.

We are looking at the core domains of One Health but to have a look at the key messages, I have just outlined 2 examples of the One Health core domains; one is the antimicrobial resistance and second is the food safety measures. For antimicrobial resistance, we should be designing a community participation model on these key messages like excessive and unnecessary use of antibiotics for people, animal or plants can cause side effects and contribute to the antimicrobial resistance.

The people, they and community, they should avoid contaminating the environment like water and soil with human and animal waste which has a residue of the antimicrobials and which lead to the emergence of antimicrobial resistance. A community should be mobilised to avoid use of antibiotics and antifungals as pesticides on the plants or crops. And avoid disposing the pharmaceutical manufacturing based in the environment and avoid direct or indirect contact with the faecal waste that may carry traces of previously consumed antibiotics, antifungals and antimicrobial resistance.

The key messages which are very difficult to address until and unless we community participate community participation models and effective strategies to address various target groups for these key messages. And similarly, for the food safety measures, we need to design the community participation exercise that eating or drinking unsafe food that are contaminated with faeces from an infected animal can lead to various illness in the human and animals.

This is a key message which need to be penetrated in the community, a very important message which address the food safety issues. And similarly, the second key message that unsafe food with high chances of contamination which can be listed using or consuming the unpasteurised milk which lead to brucellosis and consumption of undercooked meat or egg which can lead to many of the parasitic zoonotic diseases, consumption of raw fruits and unwashed vegetables which also lead to many diseases.

And an important thing which needs to be percolated in the community through community participation is to teach the community about their drinking or coming in contact with water that has been contaminated with faeces from an infected animal can lead to the important zoonotic disease like leptospirosis. One important message for the food safety which also incorporates for community participation is importance of cleaning hands, cooking utensils and surfaces and separate raw meat from the other foods, cooked foods to save and maintaining the meat at a safer temperature to ensure the meat hygiene.

So, these are the key messages when we design a community participation modelling exercises to address the food safety and security issues.

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*When we tackle the well-being of humans,
animals and the environment together,
everybody wins !*

*ONE HEALTH APPROACH CAN PROTECT THE
WORLD*



Pashu maitris in
Bihar

So, this is all about for now. This is the last key message that when we tackle the well-being of humans, animals and the environment together, everybody wins. So, community participation is key to realise the One Health at the grass-root level. So, we should be having an empowered community with us to address the One Health core domains at the grass-root level. Thank you very much.