Manage TB
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Lecture – 69
Addressing Social Barriers in Tuberculosis Control
Session 02

Welcome back to the second session on Addressing Social Barriers in Tuberculosis control.

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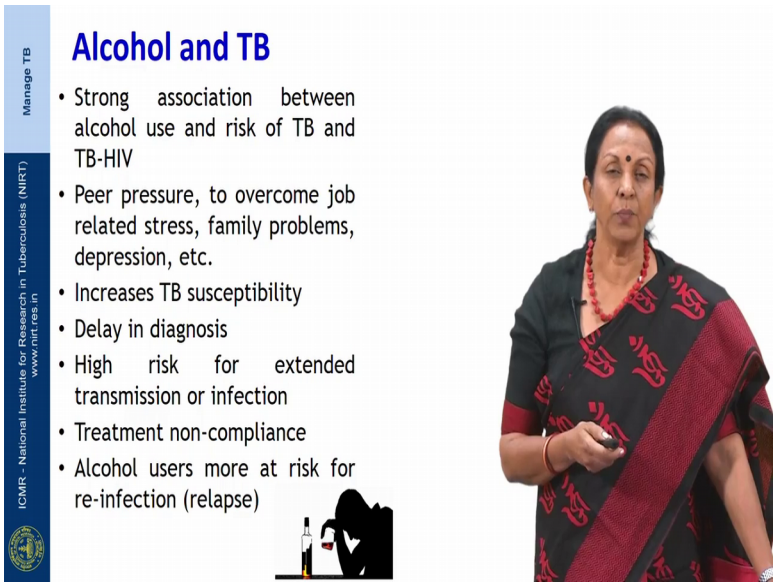

In our first session we talked about many issues ranging from smoking and the vulnerability to TB. We talked about indoor air pollution, we talked about nutrition, we talked about lack of awareness, we talked about stigma and discrimination. Most often many of these issues which we take for granted when we address a patient with TB and we do not realize how important it is not only in terms of vulnerability, but in also ensuring treatment completion and TB treatment outcomes.

This session I would really like to highlight alcohol and TB because we have found from a many studies that there is a strong association between alcohol use and risk of TB not only TB, TB and HIV. Now, just to start with how does it all start peer pressure which is what purely proms patients to start with alcohol? Again just alcohol you know to overcome stress, family problems, depression.

But it just continues and this kind of alcohol abuse which we are talking about is what increases TB susceptibility? Why I say alcohol abuse? We are not talking about just a bottle of beer, or once a week drinking no it is alcohol abuse that is measured by what who has a standard scale which is called the audit measurement that is to measure alcohol use disorder.

And we find that this measurement is important before we classify patients as those who have alcohol abuse and not just those who just consume alcohol. And what we have found is that not only does alcohol abuse which I talked about alcohol use disorder result in vulnerability to TB, but it also has so many other repercussions delays and diagnosis. It has an extended risk of transmission or infection, it results in treatment non compliance, and also we find that it is one of the major causes for reinfection, or relax.

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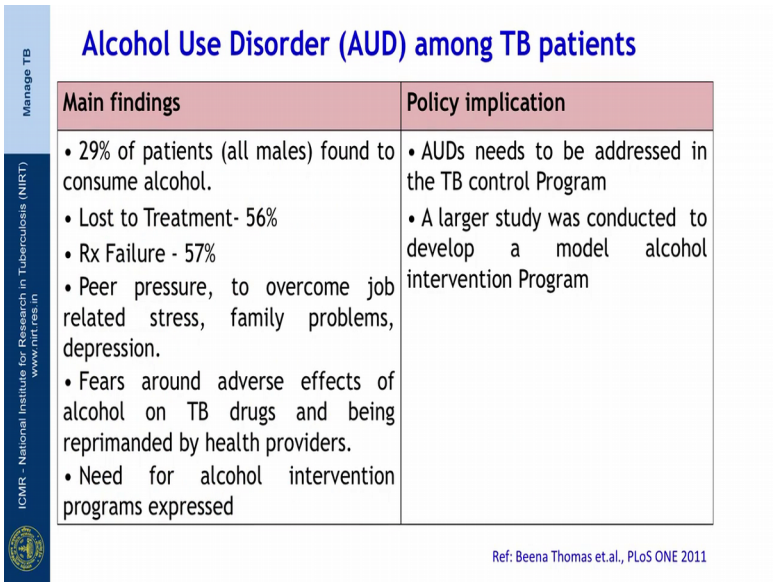

So, I am going to just give you one of our study findings which said that among the TB patients 29 percent of them did consume alcohol. The default rate look at the default rate how high it was among this group of patients almost 56 percent, treatment failure 57 percent; And like I said in the earlier slide the different reasons that prompt people to reach that stage.

But what I would like to impress upon you as doctors is that what patients go through and we just tell them things like you know if you consume alcohol you can die. If you

consume alcohol it is not going to go well with your drugs. These are kind of morbid messages you know which result in them not coming back for treatment.

So, I think we need to be very tactful in how we talk about alcohol you cannot expect a patient who has an alcohol use disorder to overnight give up alcohol. At the same time what we need to impress upon them is the need to continue their TB treatment and to be able to re reduce alcohol. But when you say something like you know you take alcohol, and you take the TB drugs you will die the patient when he has a drink and a patient who has more than a drink every day would decide to just continue drinking and not coming for TB treatment.

Some of the things which we have heard from patients is the doctor told us that every time I take alcohol and if I have to have my drugs I would die. So, that is why I have stopped going for treatment because I keep taking alcohol. So, I think as doctors are kind of messages not only doctors even health care providers the kind of messages that we need to tell our patients have to be so careful.

So, what does this all tell us that there is need for alcohol intervention programs? We need to address alcohol use disorder, and to that end we conducted this alcohol use intervention study.

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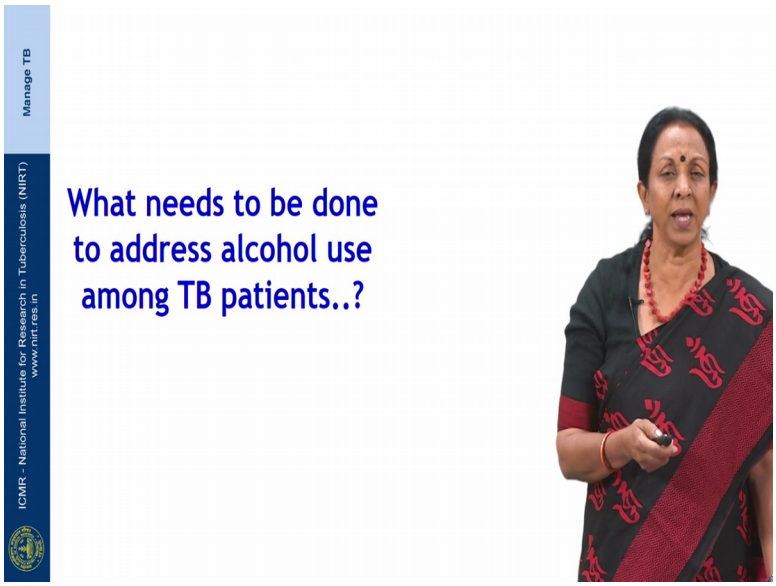

I would just like to share some of the things that we have done on what needs to be done for these people with alcohol use abuse?

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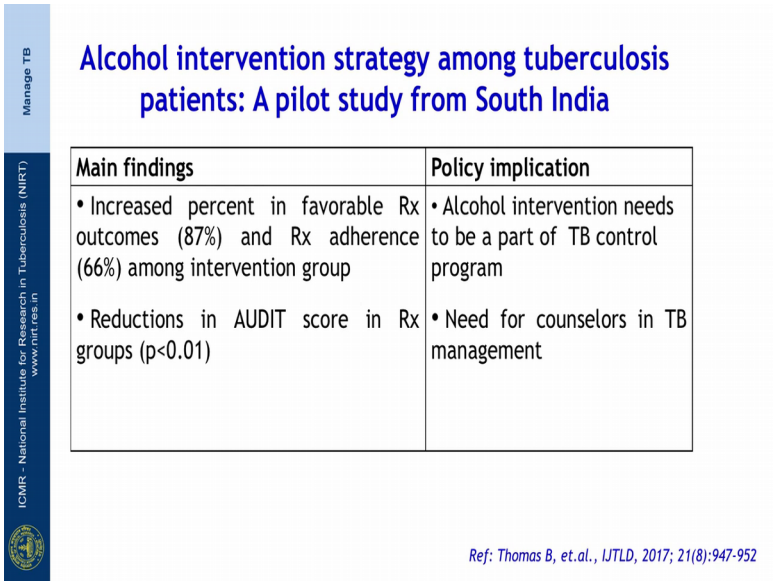

So, what we did was a very community participatory approach intervention where we first talked about what these patients wanted? Whether they really needed an intervention? Because as doctors you all do realize that unless a patient is you know in a willing state of mind and he will not respond to any intervention you cannot force him to have an intervention.

So, here we had to ask them and their family whether they really needed an intervention if so what kind of intervention? So, in this intervention if we found that we all talked very it is I think kind of a well known thing about the alcohol, anonymous group sessions we tried that. Whether you need alcohol? You know group sessions that is something that is very difficult in terms of TB patients.

Because you find that when they are sick or they come from different health centers to have a group is different. So, we had to go by an individual session, individual sessions what are the kind of intervention messages that we need? It had to come from them where they needed more visual aids, they wanted to know what alcohol does to the symptom? What about TB and alcohol? What is the kind of reaction between the two? Why should they take treatment you know as prescribed? And what would happen if they take alcohol?

So, it had to be a very different session with individual counseling that we had at 4 different time points. And this session really worked if you look at the results we found that there were so there was almost an 87 percent favorable treatment outcomes among those in the intervention group. And again we found the treatment adherence was significantly higher among the group that had the intervention as compared to the group which did not have the intervention.

And we find that there was a reduction in the ordered score and there; that means, that even there was a reduction in the drinking pattern that we you know observed which was significant again.

So, what does this tell us that we need to have an alcohol intervention? Again it is not easy for everyone to do an alcohol intervention we need counselors, but when there are no counselors doctors have to be equipped to at least give pertinent messages to the patients. So, that we not only get them to keep taking their drugs, but also promote a better treatment outcomes.

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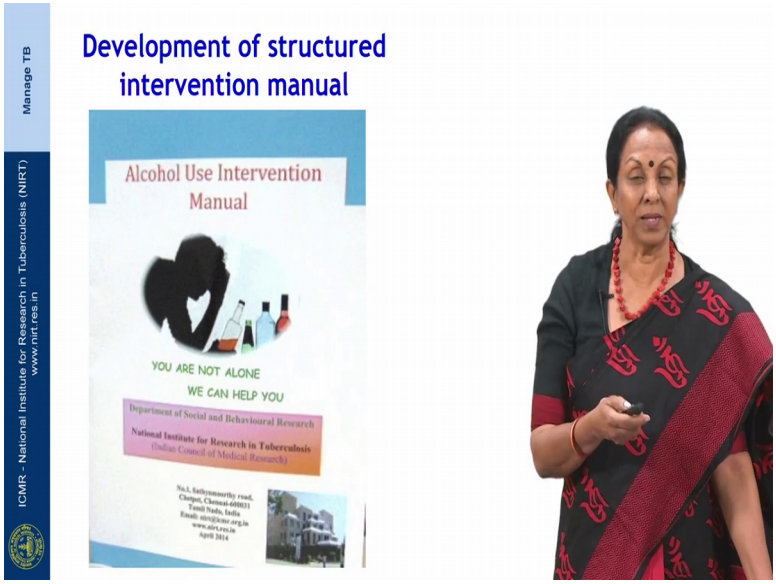

So, what we did through our studies please come out with a manual which we have it on our web page, any of you interested please feel free to access this.

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Now, I just thought it would be interesting for doctors to know about TB among the tribal population. Because there are very few studies on TB prevalence among the tribal population why the tribal population is? Because now with the whole focus on elimination of TB, you find that we need to reach the unreached and one such unreached group are the tribal population.

Then we did a Meta analysis and the pooled estimate prevalence of TB among the tribal population we found was you know very high as high as 703 per 100,000. And here what was most matter of concern was that there were so few studies and so much of heterogeneity among this population.

If you look at that anything from 146 per lakh to 3294 per lakh and what you doctors would find very interesting is there are certain tribes especially tribe in Madhya Pradesh which are called the Saharias where the prevalence was very high.

So, this kind of set us thinking that it was so important to do study to estimate the burden of TB among the tribal population and also to be able to gain insight into their health care seeking behavior patterns.

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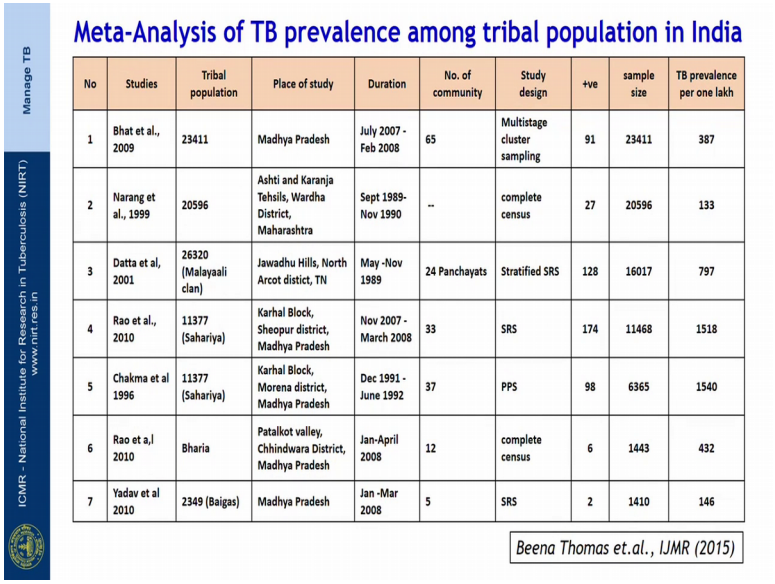

No	Studies	Tribal population	Place of study	Duration	No. of community	Study design	+ve	sample size	TB prevalence per one lakh
1	Bhat et al., 2009	23411	Madhya Pradesh	July 2007 - Feb 2008	65	Multistage cluster sampling	91	23411	387
2	Narang et al., 1999	20596	Ashti and Karanja Tehsils, Wardha District, Maharashtra	Sept 1989-Nov 1990	--	complete census	27	20596	133
3	Datta et al, 2001	26320 (Malayaali clan)	Jawadhu Hills, North Arcot distict, TN	May -Nov 1989	24 Panchayats	Stratified SRS	128	16017	797
4	Rao et al., 2010	11377 (Sahariya)	Karhal Block, Sheopur district, Madhya Pradesh	Nov 2007 - March 2008	33	SRS	174	11468	1518
5	Chakma et al 1996	11377 (Sahariya)	Karhal Block, Morena district, Madhya Pradesh	Dec 1991 - June 1992	37	PPS	98	6365	1540
6	Rao et a,l 2010	Bharia	Patalkot valley, Chhindwara District, Madhya Pradesh	Jan-April 2008	12	complete census	6	1443	432
7	Yadav et al 2010	2349 (Baigas)	Madhya Pradesh	Jan -Mar 2008	5	SRS	2	1410	146

So, like I have already told you about the Meta analysis here you find that most of the studies came from Madhya Pradesh, and here even there was a disparity. Very few studies from other regions we had one from Tamil Nadu, we had one from Maharashtra, and all the rest were from Madhya Pradesh.

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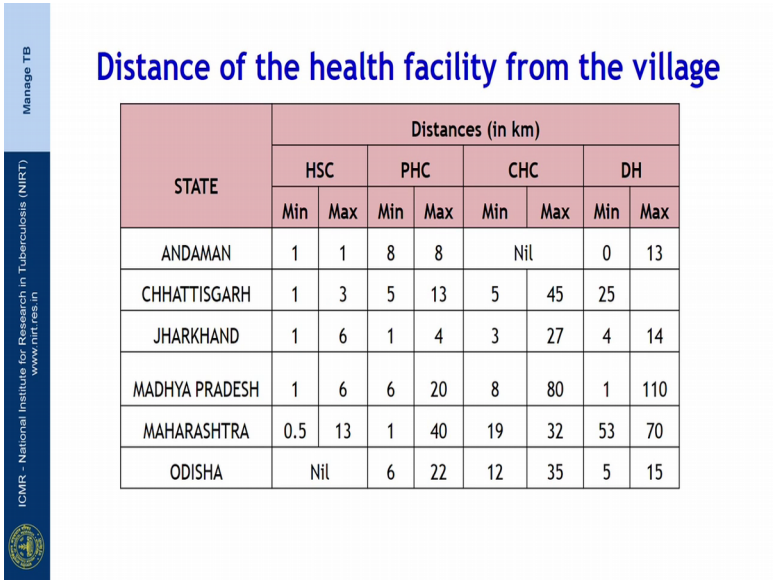

STATE	Distances (in km)							
	HSC		PHC		CHC		DH	
	Min	Max	Min	Max	Min	Max	Min	Max
ANDAMAN	1	1	8	8	Nil		0	13
CHHATTISGARH	1	3	5	13	5	45	25	
JHARKHAND	1	6	1	4	3	27	4	14
MADHYA PRADESH	1	6	6	20	8	80	1	110
MAHARASHTRA	0.5	13	1	40	19	32	53	70
ODISHA	Nil		6	22	12	35	5	15

So, what we found through our study was some of the challenges that face this tribal population. Major one distances the distances range from anywhere from if you look at to go to appear anything from even 1 to 80 kilometers, 110 kilometers. How do you

expect people in this difficult terrain to even reach any health facility? We found yes the concept of health sub centers was there, but most of the places these sub centers which are supposed to be within 2 kilometer distance were close and non functional.

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We found a lot of structural barriers with terms of difficult terrain if you look at the pictures there you know some of the roads were so flooded that even a vehicle had to stop for almost 2 hours for it to clear. Long distances between health care facilities and what we found this very few doctors are prepared to go and work in these difficult places.

We found that patients had to be carried through mountainous hilly terrain on stretchers and most often before they even reached a healthcare facility they were not there anymore. So, these kind of challenges kind of voices the need for more doctors to go and work in these kind of areas that really require care.

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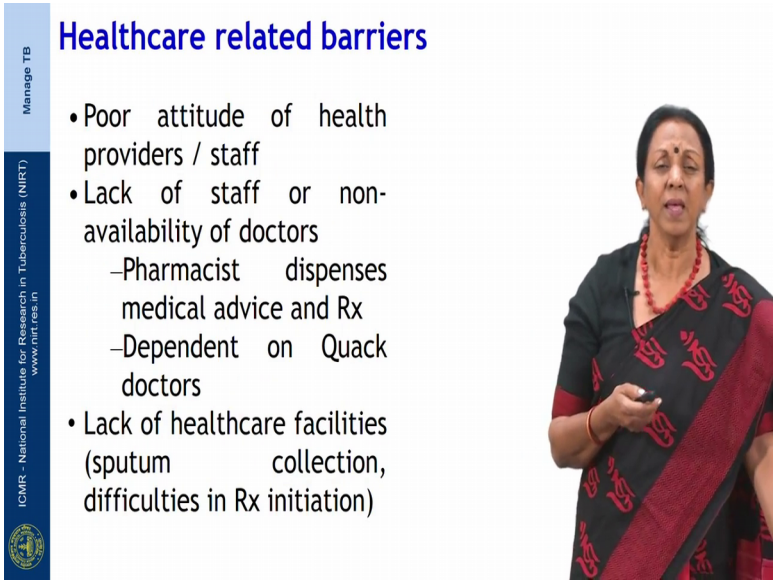

We find that those who are there the very poor attitude of health care providers there one of the regions that we went in the Himachal Pradesh, we found that a doctor here the one who posed to be a doctor was a pharmacist wearing a coat with a stethoscope and completely taken over the doctors role. And there were patients you know who were just crowded all over there just to see him all because they thought he is a doctor when he was not.

So, the whole image of doctors being taken by one can imagine the kind of damage that is being done to these patients. Again we found that even for sputum collection, even for treatment initiation, sometimes they had to travel 60 to 70 kilometers. So, what would really prompt these poor tribal people from even coming back to you know to be able to demand health care?

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If like I told you earlier the sub centers were closed, we also found that they would not even be any information about their results. So, they would go there, they would be nobody to even tell them what their spiritum results us. We found contact screening was practically nil in these tribal areas, and more so chemo prophylaxis like it must have been shared in our earlier presentations how important it is for contacts failing?.

How important it is to initiate chemo prophylaxis for those below 5 years? This is just something that does not happen in tribal areas and here we found that traditional healers have a big role to play, but there their whole role is absolutely non-functional in these areas and if one has to reach out to them we have to go through these traditional faith healers.

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We found a lot of patient related barriers which I have shared in my first session again lack of awareness and misconceptions on TB. And apart from these different health these structural barriers we found long waiting imagine traveling in such a difficult terrain and then practically spending the whole day at a health care center to be you know absolutely not even attended to in time you know.

And the communication we found was a major barrier because the tribal dialects are diverse you know the need for to be able to have more tribal people involved even in health care. So, that there is some kind of translation where you know these people could be better addressed. So, the need doctors is very high in the tribal population.

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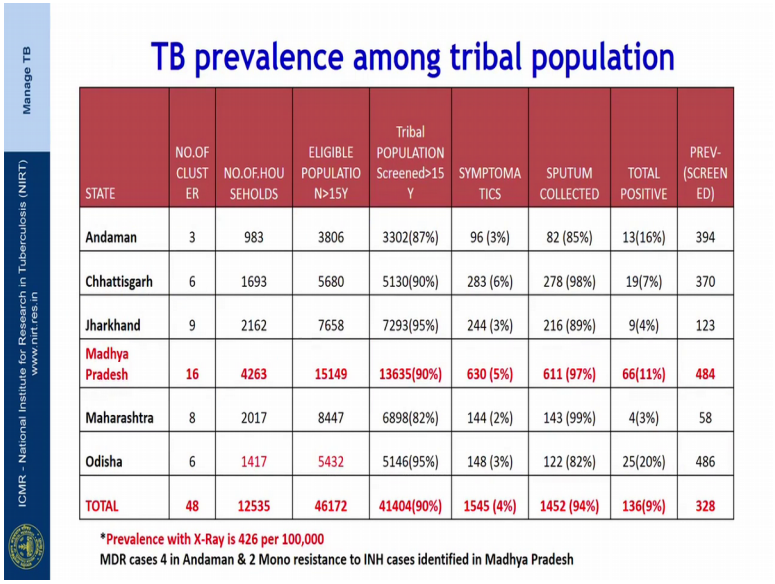

TB prevalence among tribal population

STATE	NO.OF CLUSTER	NO.OF.HOUSEHOLDS	ELIGIBLE POPULATION>15Y	Tribal POPULATION Screened>15Y	SYMPTOMATICS	SPUTUM COLLECTED	TOTAL POSITIVE	PREV-(SCREENED)
Andaman	3	983	3806	3302(87%)	96 (3%)	82 (85%)	13(16%)	394
Chhattisgarh	6	1693	5680	5130(90%)	283 (6%)	278 (98%)	19(7%)	370
Jharkhand	9	2162	7658	7293(95%)	244 (3%)	216 (89%)	9(4%)	123
Madhya Pradesh	16	4263	15149	13635(90%)	630 (5%)	611 (97%)	66(11%)	484
Maharashtra	8	2017	8447	6898(82%)	144 (2%)	143 (99%)	4(3%)	58
Odisha	6	1417	5432	5146(95%)	148 (3%)	122 (82%)	25(20%)	486
TOTAL	48	12535	46172	41404(90%)	1545 (4%)	1452 (94%)	136(9%)	328

*Prevalence with X-Ray is 426 per 100,000
MDR cases 4 in Andaman & 2 Mono resistance to INH cases identified in Madhya Pradesh

So, what through our study what we found is the TB prevalence again was very high, especially in Madhya Pradesh we found it was around 484 per 100,000. And the total was around 328 per 100,000. If you look we found that while in an Andaman's was going in for elimination, but we find still it is a problem that has to you know be dealt with Orissa.

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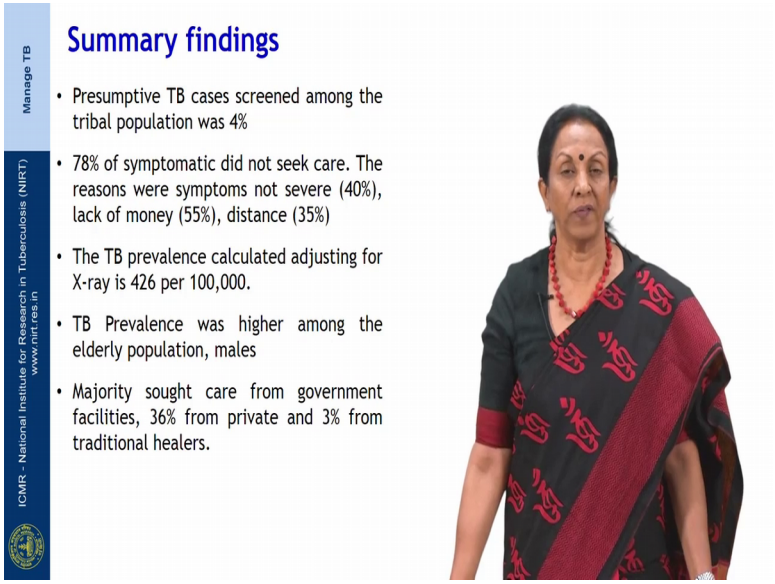

Summary findings

- Presumptive TB cases screened among the tribal population was 4%
- 78% of symptomatic did not seek care. The reasons were symptoms not severe (40%), lack of money (55%), distance (35%)
- The TB prevalence calculated adjusting for X-ray is 426 per 100,000.
- TB Prevalence was higher among the elderly population, males
- Majority sought care from government facilities, 36% from private and 3% from traditional healers.

So, most of the states except if you notice Maharashtra the prevalence was pretty alarming; To summarize the findings of all of our tribal study what we found is that the

presumptive TB cases was as high as four percent among the tribal population which is higher than the non tribal population. Another matter of concern was almost 80 percent of symptomatic did not seek care.

And among those who sought care the most prominent symptom which made them seek care was loss of weight and blood and sputum as compared to what we would think in terms of cough you know which did not feature it came it came third. In fact, you know it was first loss of meters in blood and sputum followed by cough. And then here we find that the TB prevalence among the tribal population was 426 per 100,000 which is much higher than the general population.

Another fact that I want you to open your eyes to is that TB prevalence was higher among the elderly population. And this has been also reported and non tribal population where sometimes you realize that we tend this fact this kind of very often ignored we always look at TB more among the productive group 15 to 45 we do not realize that we need to look for TB even among the elderly population.

In this group again while most of them sought care from government facilities, we found that still even in the tribal areas the role of private doctors has, had a big role to play in the sense more than 38 percent of them accessed private care facilities. And still we have traditional healers who have an influence on the health seeking behavior patterns.

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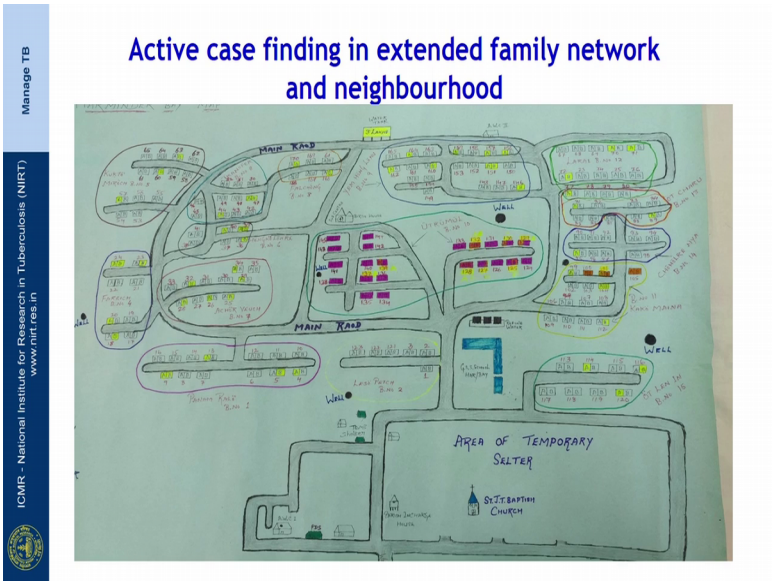

I would like to just present this very interesting slide which we did in Nicobar because they were actually working towards a 0 TB in this particular you know Island which is Hut bay that is in Nicobar. And we found that when we went there we found there were about 3 MDR cases we just went it was just a village with the 1200 population.

And looking at the secondary data we were able to map out this where if you notice the yellow shows that there was at least one patient in that house who had TB or a history of TB. So, this is something that we need to think in terms of trying to why do we need to do this? Because if in the program like we are thinking in terms of active case finally, we need to have it more focused.

So, we know where to so even when we do our history taking as doctors it is important to be able to find out the history of TB in the family whether they are in contact with other patients. And try to see how best we can understand TB transmission dynamics and advice accordingly.

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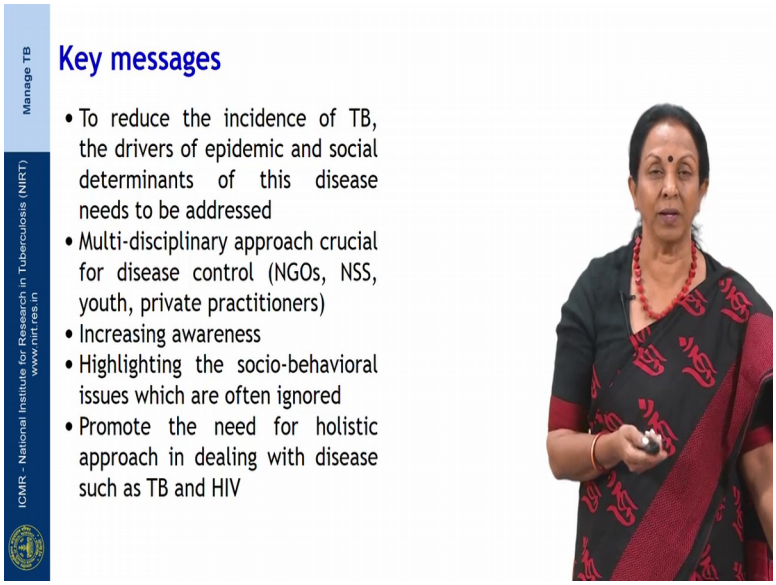

So, what are my key messages is? That if we need to reduce the incidence of TB, we need to understand these drivers of the epidemic which are where social determinants play a major role. We need to have a multidisciplinary approach not only done by the health system, but also to be able to involve NGOs, to be involved involve other groups like NSS, or youth to be able to promote early detection and treatment.

We need to have more of community awareness programs to increase awareness. So, again we are able to facilitate early diagnosis and treatment, and we need to think in terms of social behavioral issues which are most often ignored by medical practitioners if we need to have better treatment out comes. So, to summarize we need to promote a holistic approach to deal with any disease whether it be TB, or TB and HIV.

Thank you.