

Population Studies
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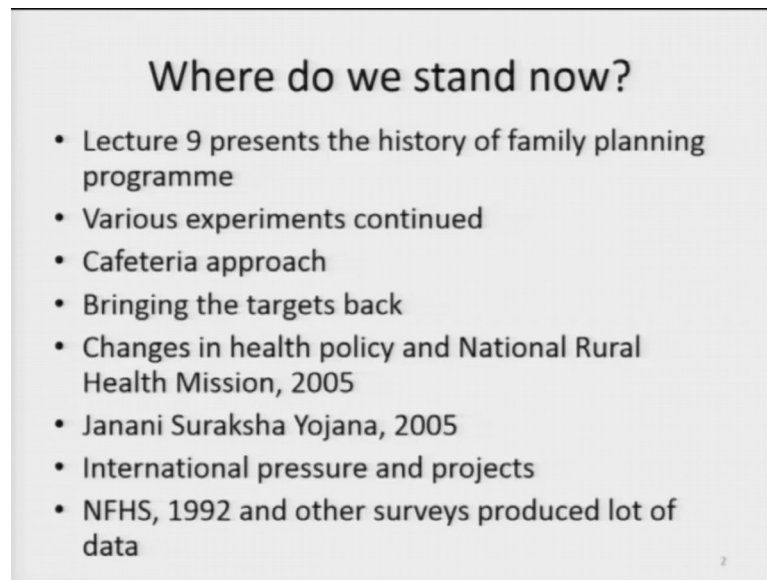
Lecture - 10
Population and Family Welfare-II

Friends in the last lecture I was talking about family planning program in India, its brief history and I said that India was the first country in the world to launch a family planning program. Obviously, we learned from our own mistakes and made lots of experiments we started with Gandhian approach then went to clinical approach then extension education approach and so on and now we have implemented the sustainable development goals with emphasis on welfare.

For quite some time however I would say, starting ICPDs International Conferences on Population and Development, there has been a shift from coercive family planning to welfare and reproductive health and that has been reflected in the population policy of India also.

So, over the years targets concerning fertility rate and contraceptive prevalence were less emphasized and in targets regarding infant mortality, maternal mortality, child mortality, ,nutrition, percentage delivery or safe delivery or percentage delivery in health facilities they became more important and associated factors like potable water, nutrition, education, immunization, knowledge information and availability of different methods of family welfare like cafeteria approach not emphasizing sterilization which was a big mistake on the part of government in the first population policy period around 1976.

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Where do we stand now?

- Lecture 9 presents the history of family planning programme
- Various experiments continued
- Cafeteria approach
- Bringing the targets back
- Changes in health policy and National Rural Health Mission, 2005
- Janani Suraksha Yojana, 2005
- International pressure and projects
- NFHS, 1992 and other surveys produced lot of data

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So, where do we stand now, the last lecture gave the brief history of family planning various experiments continued cafeteria approach targets have been brought back. However, there is a change in health policy and national rural health mission was started in 2005 for safe delivery reducing infant mortality, neonatal mortality, post neonatal mortality and for legitimate and safe abortions and Janani Suraksha Yojana even included incentive for delivery in health facilities. There was international pressure and various projects were undertaken towards welfare of children and women.

Starting 1992 we have now lot of data on family and related matters. The first national family health survey was started in 1992 and now fourth round of NFHS has been completed and we are just going to start the fifth National Family Health Service. So, between 1992 and 2019 now we have a lot of information about all aspects of reproduction and mortality, including some information on the causes of death and diseases communicable non communicable and so on.

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India is a multicultural society

- There is more than one way to skin a cat
- Different communities
- Different stages of socio-economic development
- Different visions of the future
- Different stages of demographic modernization
- Needed focus on scientific services of high quality

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We better appreciate that India is a multicultural society, for example although the overall total fertility rate is 2.2 but there are lot of differences according to caste according to religion according to wealth index socio economic categories urban and rural areas education; for example, Jains have one of the lowest fertility and Muslims have one of the highest fertility. There are differences according to caste like SC and ST having slightly higher fertility and others having slightly lower fertility but caste differences are not so pronounced.

Coming to education you will be surprised to know that according to SRS latest SRS data women who have already achieved high school or tenth standard education have almost replacement level fertility and those who have intermediate education 10 plus 2 they have below replacement fertility at the national level irrespective of anything else.

So, there are differences because different communities castes, regions, religions and urban and rural areas and educational groups social categories they are at different stages of socio-economic development and demographic transition. They have different visions of the future they are like nations having belief in a common history and a common future, which affects their decision even in matters like family planning.

So, there are different stages of demographic modernization but everybody is modernizing. It is only a matter of time, all religions, castes and communities are

modernizing with respect to demographic trends also and we need more focus on scientific services of high quality.

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We have better data and better management health information management system has been launched recently and we have data on age of marriage children abortions infant mortality causes of deaths and diseases. We have data on decision making NFHS gives data on decision making NFHS also give data on women empowerment and domestic violence.

We have more awareness of gender bias lot of research papers have been written recently in good journals and magazines of India including EPW and sociological bulletin on nature of gender bias and there is a general fight against patriarchy in the forms, in various forms of feminism.

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PRB, India-population-bulletin.pdf

Population Size and Growth, India, Census Years 1901-2011

CENSUS YEAR	TOTAL POPULATION	CHANGE	POPULATION GROWTH RATE ANNUAL, %	MULTIPLE OF 1901 POPULATION
1901	238,396,327		-	1.0
1911	252,090,390	13,697,063	0.6	1.1
1921	251,321,213	-772,177	-0.0	1.1
1931	278,977,238	27,656,025	1.0	1.2
1941	318,660,580	39,683,342	1.3	1.3
1951	361,088,090	42,427,510	1.2	1.5
1961	439,234,771	78,146,681	2.0	1.8
1971	548,159,652	108,924,881	2.2	2.3
1981	683,329,097	135,169,445	2.2	2.9
1991	846,302,688	162,973,591	2.1	3.5
2001	1,028,737,436	182,434,748	2.0	4.3
2011	1,210,854,977	182,117,541	1.6	5.1

Note: Map not drawn to scale.

Source: Office of the Registrar General and Census Commissioner General, India, Population Enumeration Data, Final Population, Table A-2, Decade: Variation in Population Since 1901.

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Now, here is a table which shows the population of India since 1901 and the growth rate in 1901 India's population was 23,83,96,327 and now it has increased to 1210. Now this last column gives what is the multiple of 1901 population. In at the time of independence 1951 the first census of the post independence period was conducted, we had already become 1.5 times our size in 1901 and today you see the because of high growth rate of population after 1941 you find that today in today means in 2011, the last census date in 2011 India's population becomes 5.1 time the population in 1901.

The population had been growing at a very well very slow pace but during the last century between 1901 and 2001; 100 years time population became 4 times and it is not anything unusual; populations of developing countries have been increasing at this rate; China became 4 times. Some of the least developed countries of Africa when they complete their demographic transition, their population will grow to 12 to 15 times the original size. Now population therefore, it disturbs everything socio-economic, political, civilization, institutional and therefore this is a serious issue.

So, friends now I want to show you some data on fertility and mortality, partly from National Family Health Survey and partly from the report of Sustainable Development Goals; according to NFHS-4 data which are conducted in 2015-16.

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Fertility and mortality, NFHS-4 2015-16				
	U	R	T	2005 -6
Marriage and Fertility				
15. Women age 20-24 years married before age 18 years (%)	17.5	31.5	28.8	47.4
16. Men age 25-29 years married before age 21 years (%)	14.1	24.4	20.3	32.3
17. Total fertility rate (children per woman)	1.8	2.4	2.2	2.7
18. Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)	5.0	9.2	7.9	16.0
Infant and Child Mortality Rates (per 1,000 live births)				
19. Infant mortality rate (IMR)	29	46	41	57
20. Under-five mortality rate (USMR)	34	56	50	74

You find that women aged 20 to 24 who are still marrying below the age of 18 years has reduced drastically but it is still 26.8 percent. In 2005-6 half of the women were marrying before 18 that means this was illegal marriage.

Now, this percentage certainly come down from 47.4 to 26.8 but this has to go down to 0. Similarly men aged 25 to 29 for whom minimum legal age of marriage is 21 of them even now 20.3 percent are marrying below the age of 21. Earlier in 2005-6 the figure was 32.3, so suddenly it has also come down from that level 32.3 to 20.3 but is still there is a scope to reduce this figure and ultimately this has to be brought down to 0.

Total fertility rate is 2.2; I have been saying this then infant mortality rate has declined according to this latest survey, infant mortality rate is 41 in 2005-6 it was 57, so again there is some improvement and there is also a scope for infant mortality to decline further.

There are also urban rural differences very pronounced differences between urban and rural areas in all indicators for example, infant mortality rate in urban areas has already come down to 29 but in rural areas it stands at 46. Under-five mortality has also declined drastically from 74 in 2005-6 to 50 and again there are rural urban differences.

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Family Planning				
Current Use of Family Planning Methods (currently married women age 15–49 years)				
21. Any method ^a (%)	57.2	51.7	53.5	56.3
22. Any modern method ^a (%)	51.3	46.0	47.8	48.5
23. Female sterilization (%)	35.7	36.1	36.0	37.3
24. Male sterilization (%)	0.3	0.3	0.3	1.0
25. IUD/PIUD (%)	2.4	1.1	1.5	1.7
26. Pill (%)	3.5	4.3	4.1	3.1
27. Condom (%)	9.0	3.9	5.6	5.2
Unmet Need for Family Planning (currently married women age 15–49 years) ^b				
28. Total unmet need (%)	12.1	13.2	12.9	13.9
29. Unmet need for spacing (%)	5.1	5.9	5.7	6.1
Quality of Family Planning Services				
30. Health worker ever talked to female non-users about family planning (%)	18.6	17.2	17.7	10.1
31. Current users ever told about side effects of current method ^c (%)	50.1	45.0	46.5	34.4

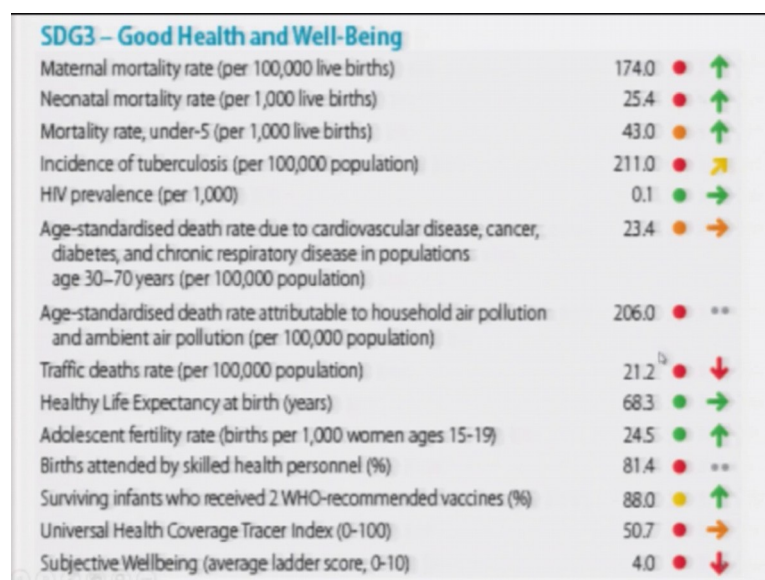
If you look at the figures of family planning from National Family Health Survey-4, you find that in age group 15 to 49 and among currently married women 53.5 percent women are using any method of family planning. Surprisingly this figure is lower than the figure which was reported earlier in 2005 which is 56.3. The percentage of women who are using modern method of family planning has also declined from forty 48.5 to 47.8.

Similarly female sterilization, male sterilization, IUCD pills, pills has increased 3.1 to 4.1, other methods of family planning have declined but pills has improved and this condom has also improved. So, and we expect it to be so and with education, awareness condoms and pills are considered to be safe method of family planning and they are increasing.

Another reason maybe that there are some communities among which sterilization is not considered to be a method permitted by the religion. So, they are going for condoms and pills. Then unmet need for family planning which was 13.9 percent in 2005-6; these are declined to 12.9 and unmet need for spacing has declined from 6.1 to 5.7. The difference between these figures is that total unmet need refer to percentage of couples who are not using any family planning method though they neither want a child soon and nor a child anymore.

While in case of unmet need for spacing they are the percentage couple who want some child but not in the immediate future. So, they have a need for spacing methods. Similarly, there are some figures on quality of family planning services.

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These figures are taken from Sustainable Development Goals, detailed report on India is available on net; you can always refer to that. Maternal mortality rate is 174.0 which is very high. India has one of the highest maternal mortality rates and this should draw our attention. Neonatal mortality rate stands at 25.4 and mortality rate under-5 at 43.0.

One can look at these figures, our attention is often drawn towards life expectancy at birth whenever we talk of health and improvement in health measures the first indicator is life expectancy but this life expectancy is slightly different; this is healthy life expectancy at birth, means life expectancy number of years we are expected to live healthily without any disease that is 68.3 and India has certainly improved its health parameters. This life expectancy at birth healthy summarizes all the indicators of mortality discussed earlier infant mortality, neonatal, post neonatal under-5 and so on.

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SDG4 – Quality Education		
Net primary enrolment rate (%)	92.3	● **
Mean years of schooling ^{1a}	6.3	● ↗
Literacy rate of 15-24 year olds, both sexes (%)	86.1	● **
SDG5 – Gender Equality		
Unmet demand for contraception, estimated (% women married or in union, ages 15-49)	18.4	● ↑
Female to male mean years of schooling of population age 25 + (%)	58.5	● **
Female to male labour force participation rate (%)	34.5	● ↓
Seats held by women in national parliaments (%)	11.8	● →
Source: 02 SDGS Country Profiles edition Web V 3 180718 pdf		

Then if you look at quality education then 92.3 percentage our net primary enrolment rate, mean years of schooling is 6.3, literacy rate of 15 to 24 year olds both sexes combined 86.1 these this is ok. This 6.3 mean years of schooling needs lot of improvement, some other things which need lot of improvement here female to male mean years of schooling of population; means mean years of schooling for women divided by mean years of schooling for men which shows gender gap in education.

Similarly, female to male labour force participation rate is 34.5, female labour force participation rate divided by male labour force participation rate. In the recent past female labour for participation rate has declined and one has to look into whether this is a real problem or the problem of statistics.

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TFR from SRS

- http://www.censusindia.gov.in/vital_statistics/SRS_Reports__2016.html

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Seats held by women in national parliament is only 11.8 and we are very far from gender equality in the political sphere, we have data on TFR from Sample Registration Scheme.

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TFR (Total Fertility Rate) by residence, India and bigger States/UTs, 2016			
India and bigger States/UTs	Total	Rural	Urban
India	2.3	2.5	1.8
Andhra Pradesh	1.7	1.7	1.5
Assam	2.3	2.4	1.6
Bihar	3.3	3.4	2.5
Chhattisgarh	2.5	2.7	1.9
Delhi	1.6	1.8	1.6
Gujarat	2.2	2.5	1.9
Haryana	2.3	2.4	2.0
Himachal Pradesh	1.7	1.7	1.2
Jammu & Kashmir	1.7	1.9	1.2
Jharkhand	2.6	2.9	2.0
Karnataka	1.8	1.9	1.6
Kerala	1.8	1.8	1.8
Madhya Pradesh	2.8	3.1	2.1
Maharashtra	1.8	1.9	1.6
Odisha	2.0	2.1	1.4
Punjab	1.7	1.7	1.6
Rajasthan	2.7	2.8	2.3
Tamil Nadu	1.6	1.7	1.6
Telangana	1.7	1.8	1.6
Uttar Pradesh	3.1	3.4	2.4
Uttarakhand	1.9	1.9	1.7
West Bengal	1.6	1.7	1.3

These are the data; there are rural urban differences, there are state wide differences, I was telling you that in some; overall we have reached 2.3 but there are states where fertility is still more than 3. It is Bihar 3.3 and Madhya Pradesh 2.8 and Uttar Pradesh is 3.1. So, Uttar Pradesh and Bihar still have more than 3 children in rural areas 3.4 and 3.4 rural areas of Bihar and Uttar Pradesh are at the same place.

Urban areas of Bihar have 2.5 slightly less UP 2.4 but at the same time increasing number of states are now showing below replacement fertility less than 2.1. Kerala where demographic transition started first now that is 1.8 but there are some other states where fertility is below even 1.8; this Punjab 1.7, Telangana 1.7 and West Bengal is 1 point; surprisingly West Bengal is only 1.6. These are rural urban actually you can go to sample registration website and see all these figures.

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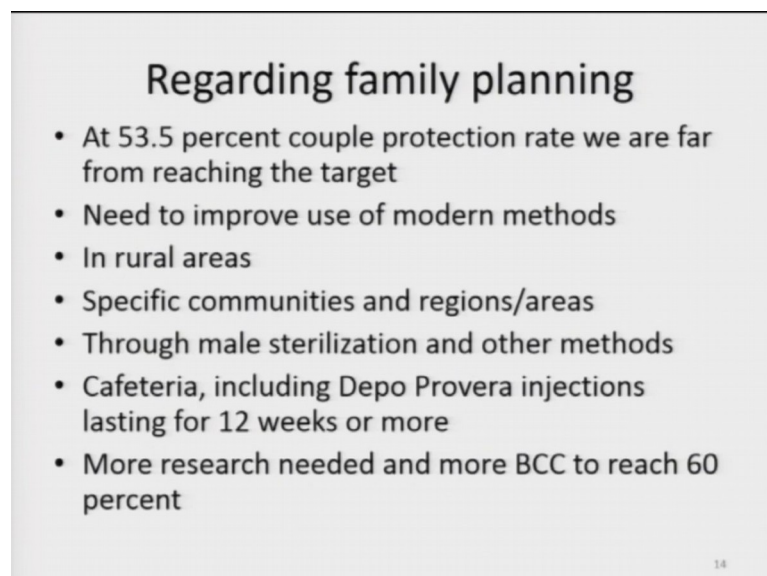
Where to go ?

1. Scope to reduce IMR further and raise e_0^0
2. Area and community specific approaches
3. Focus on marginal sections of society
4. EDUCATION
5. GOVERNANCE
6. GLOBALIZATION – migration to produce diffusion
7. Make the services more reliable
8. Strengthen primary and secondary health services and referral facilities

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Now, where to go; education governance these are the keys.

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Regarding family planning

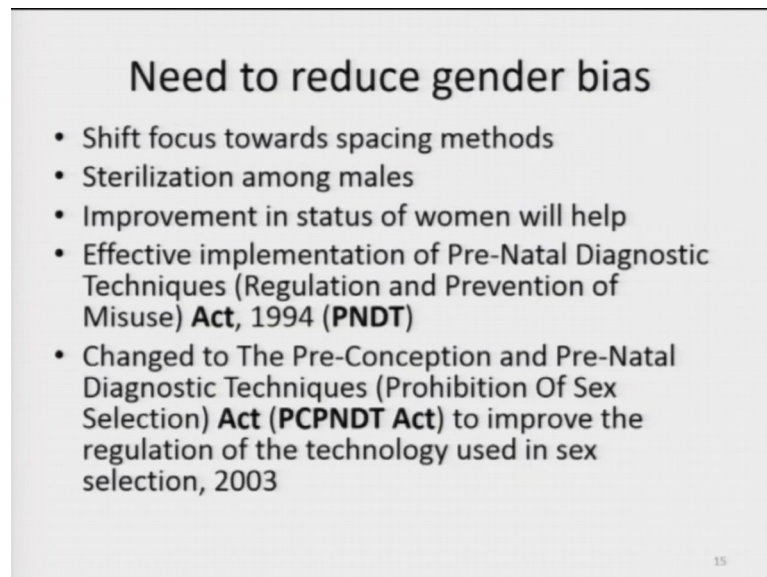
- At 53.5 percent couple protection rate we are far from reaching the target
- Need to improve use of modern methods
- In rural areas
- Specific communities and regions/areas
- Through male sterilization and other methods
- Cafeteria, including Depo Provera injections lasting for 12 weeks or more
- More research needed and more BCC to reach 60 percent

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Regarding family planning 53.5 percent couples are using family planning. So, we have we have not yet achieved the targets and we are far from reaching the target more in rural areas and in certain communities and regions which can be identified on the basis of data.

Recently Depo Provera injections have been used please protect women for 12 weeks or more this through better research this period has to be extended and at the moment there are certain side effects of these injections; these side effects have to be controlled. So, more research is needed.

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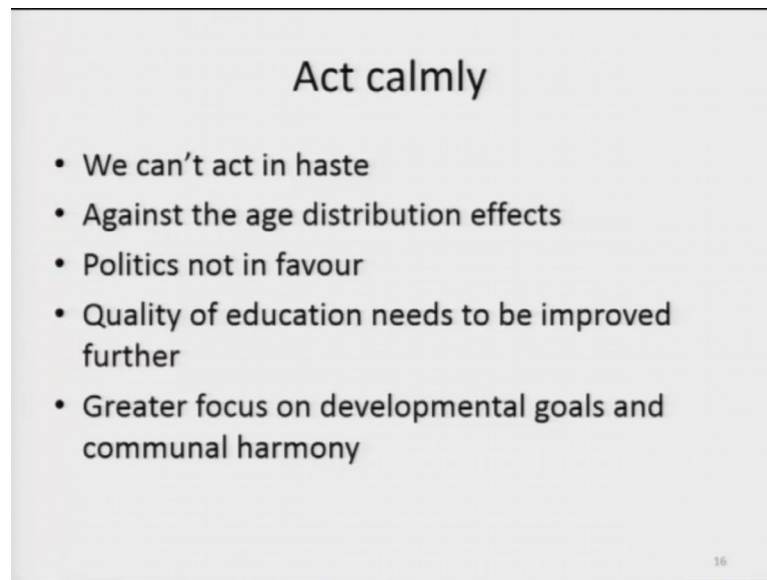
Need to reduce gender bias

- Shift focus towards spacing methods
- Sterilization among males
- Improvement in status of women will help
- Effective implementation of Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) **Act**, 1994 (**PNDT**)
- Changed to The Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition Of Sex Selection) **Act (PCPNDT Act)** to improve the regulation of the technology used in sex selection, 2003

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There is also a need to reduce gender bias, gender bias is actually a major issue and sometime we will talk about this thing in more depth. Decline in sex ratio in age group 0 to 6 caused by female foeticide is a very serious social issue and not only a population issue but a serious socio-economic issue and we have to focus on that.

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But we have to act calmly we cannot act in haste, we cannot go against the age distribution effects and ultimately state is not an easy situation because state has to develop effective policies in the national interest but a state has to take care of sentiments of different communities, groups, caste, regions, linguistic groups and cultural groups.

So, politics is also not in favour sometime and specific mention of communities is avoided by politics, they cannot make a generalized they; appeal to all the members of lagging communities. Communities cannot be identified and quality of education needs to be improved and there has to be greater focus on development goals and communal harmony.

Because sometimes you take as for minority communities you take some decision like polio vaccine or family planning program, it is in the interest of individual couples but they think that because they are in minorities perhaps majority community is doing something to harm their socio-political interests or to arrest their growth.

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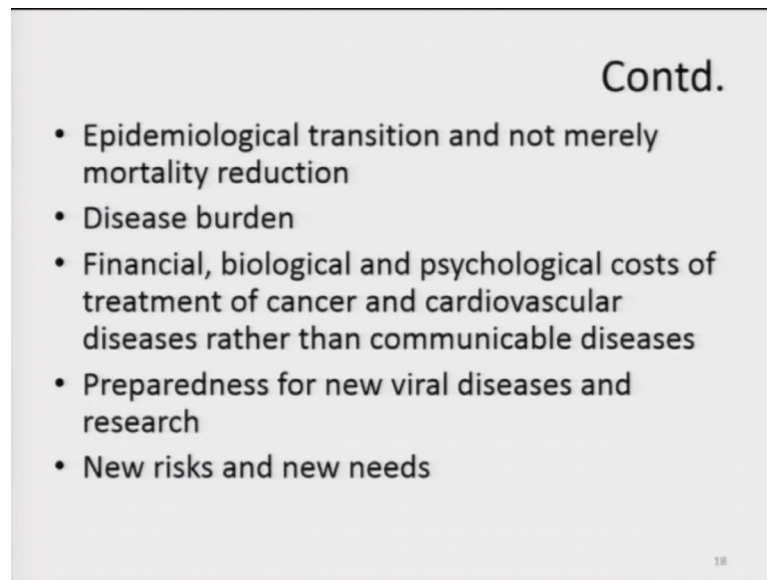
The slide is titled "Start thinking about" in a bold, black font. Below the title is a bulleted list of five points. The background is light gray, and the text is black. A small number "17" is visible in the bottom right corner of the slide.

- Aging – how to deal with so many old people
- Demographic nightmare
- Migration policy
- Inter-state migration integrates and contributes to development
- But creates linguistic, cultural and political issues

So, these misgivings have to be removed and we have to think about however when fertility is going below the replacement level; we have to prepare ourselves for the situation in which developed countries are the problem of aging, number of old people has started rising, very soon the number of old people will rise to 4 times, 5 times; we have to prepare ourselves for that situation and demographic dividend rise the recent rise in proportion of working age population may turn to be a demographic nightmare.

If sufficient capital and employment opportunities are not provided then migration policy, inter-state migration integrates and contributes to development it has to be encouraged but we are going in the reverse direction and due to political reasons, the soil demand we are taking actions which actually discourages migration and creates linguistic, cultural and political issues.

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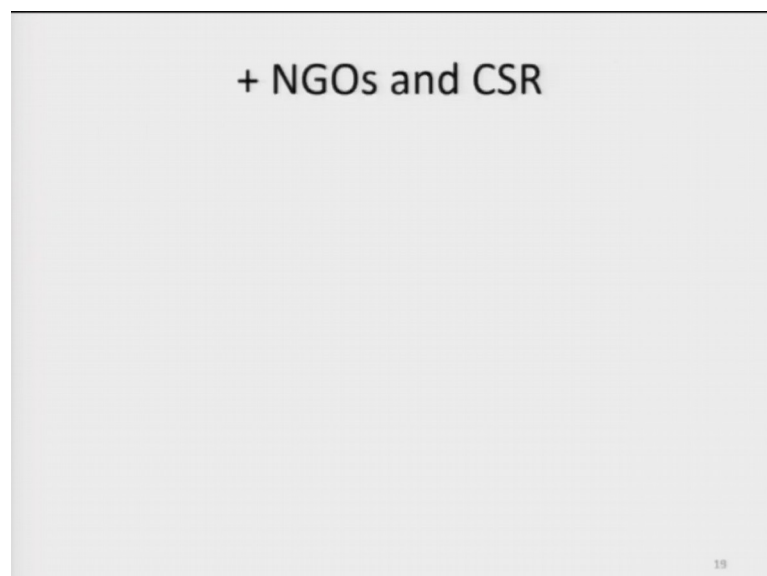
- Epidemiological transition and not merely mortality reduction
- Disease burden
- Financial, biological and psychological costs of treatment of cancer and cardiovascular diseases rather than communicable diseases
- Preparedness for new viral diseases and research
- New risks and new needs

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We also have to look at that along with demographic transition and Epidemiological transition is also taking place which means that there is a fall in the burden of communicable diseases, there is an increase in non-communicable diseases and also in accidents and injuries, cancer, stroke, cardiovascular diseases and diabetes etcetera.

Then these are the diseases cancer cardiovascular non-communicable diseases are the diseases which require costly treatment and the country is not prepared to take care of so many people suffering from these diseases.

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+ NGOs and CSR

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So, not clear what to be done in these cases perhaps NGOs and Corporate Social Responsibility have to be developed in their true sense and government alone cannot do much. So, government plus community leaders plus NGOs plus industries and entrepreneurs and the Corporate Social Responsibility can take up gender issues, educational issues and awareness.

Thank you.