Comparative Study on Urban and Rural tuberculosis patients in Alirajpur District, Madhya Pradesh

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Introduction

- Tuberculosis (TB) continues to be a major public health problem in India, with over 1.9 million new cases annually, making it the highest TB burden country in the world.
- TB accounts for one-fifth of the world's new TB cases, and two-thirds of the cases in the Southeast Asia region. For the second year in a row, India has landed the dubious distinction of being number one in the world for deaths from tuberculosis: 423,000 TB patients died in the year 2016. That is a third of the world's 1.4 million death toll.
- Study was conducted at Alirajpur District in Madhya Pradesh on registered TB patients including both genders.
- The TB statistics for each state in India come from the government Revised National Tuberculosis Control Programme (RNTCP). The population covered by RNTCP in Madhya Pradesh survey is 77,800,000.
- India, of course, is not the only country where TB is a bane. India's high volume of TB deaths is followed closely by Indonesia, China, the Philippines and Pakistan.
- TB is now the world's deadliest infectious disease, causing more annual deaths than HIV.

Organization Profile

National Health Mission

- It encompasses its two Sub-Missions, the National Rural Health Mission (NRHM) and the newly launched National Urban Health Mission (NUHM).
- National Rural Health Mission was launched by the Hon'ble Prime Minister Dr. Manmohan Singh, on 12th April 2005, to provide accessible, affordable and quality health care to the rural population, especially the vulnerable groups.
- The Union Cabinet vide its decision dated 1st May 2013 has approved the launch of National Urban Health Mission (NUHM)

Revised National Tuberculosis Control Programme (RNTCP)

- **National Tuberculosis Control Programme**
- NTCP was started in1962 with aim to detect cases at the earliest & treat them.
- However – Treatment success rate : unacceptably low – Death & default rate : high

- **Need For Revised Strategy**
- In 1992, nation wise review was conducted with assistance of SIDA & WHO.
- NTP suffered from managerial weakness
- Inadequate funding
- Over reliance on X rays for diagnosis
- Frequent interrupted supplies of drugs
- Low rates of treatment completion.
- In 1993, GoI decided to give a new thrust by revitalizing NTP.
- RNTCP thus formulated which is the state-run tuberculosis (TB) control initiative of the Government of India.

Revised National Tuberculosis Control Programme (RNTCP)

- **Objectives of RNTCP:**

- To achieve and maintain a cure rate of at least 85% among newly detected infectious (new sputum smear positive) cases
- To achieve and maintain detection of at least 70% of such cases in the population.

- **Revised strategy:**

- Augmentation of organizational support at centre and state level.
- Use sputum testing as primary method of diagnosis
- Standardized treatment regimen
- Ensuring regular, uninterrupted supply of drugs
- Emphasis on training, IEC, operational research & NGO involvement.
- Increased budget outlay

- **Components of DOTS:**

- Political will ensures financial support and sustainability.
- Case detection with the help of quality assured sputum smear microscopy.
- Regular and uninterrupted supply of drugs patient wise boxes
- Directly observed treatment while patient is getting treatment.
- Systemic monitoring and accountability.

Research Objectives

- To compare the urban and rural tuberculosis patients of Alirajpur District, Madhya Pradesh.
- To determine the root cause of tuberculosis at Alirajpur
- To find out solutions that can reduce the prevalence of TB in Alirajpur
- To find what the government has done so far in an effort to eliminate TB

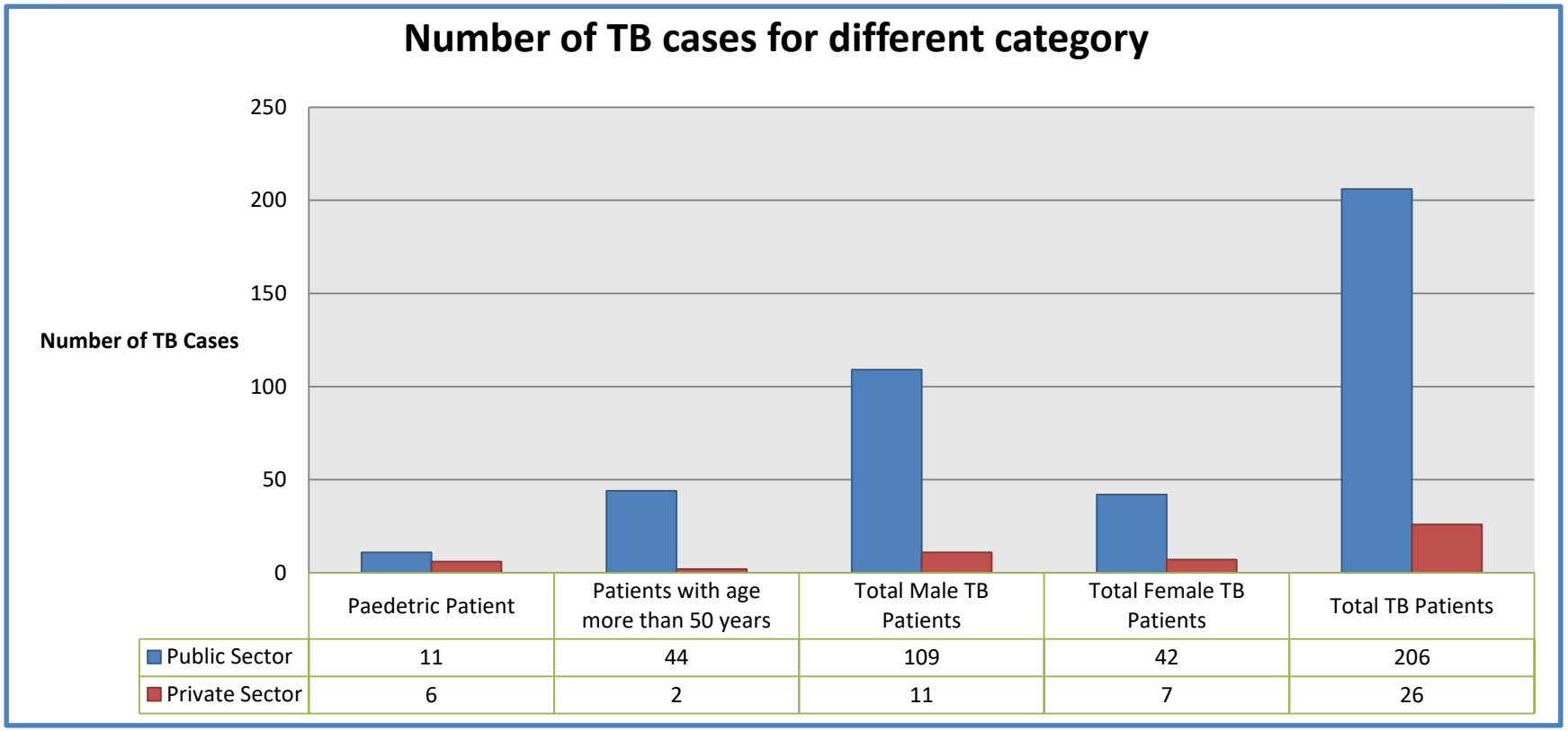
Research Questions

- What are the possible causes of TB in Alirajpur?
- Are rural populations more vulnerable to TB compared to urban populations?
- Is there a gender divide in TB vulnerability in Alirajpur?
- What is the stigma associated with TB between the males and females?
- Is there general information about TB in Madhya Pradesh?
- Has the government made steps in eliminating TB in Madhya Pradesh?

Methodology

- Study type – Descriptive study
- Study place - Alirajpur district, Madhya Pradesh, India.
- Study time – 05th Feb – 05th May 2018
- Study sample size - 232 participants (Registered rural and urban tuberculosis patients in TB cell)
- Study population – Children & Adult patients
- Data Analysis Procedure- Software like MS Excel used for data entry and analysis.
- Methods used for primary data collection - Questionnaires were distributed randomly among villages.
- The questions included in the questionnaire required the respondents to fill out their history of TB within their family. Interviews were also conducted randomly in the villages.

Key Findings: Graph 1



	Paedetric Patient	Patients with age more than 50 years	Total Male TB Patients	Total Female TB Patients	Total TB Patients
Public Sector	11	44	109	42	206
Private Sector	6	2	11	7	26

Figure 1: Represents TB patient details in the Public and Private Sectors of Madhya Pradesh

As can be seen from the above Figure 1 number of total TB cases for the period of study; for public sector 206 TB cases were reported while for Private it was only 26 reported cases thus suggest a wide difference of awareness, eating habits, living style between the two sectors and Public sector is far more vulnerable to TB.

Graph 2

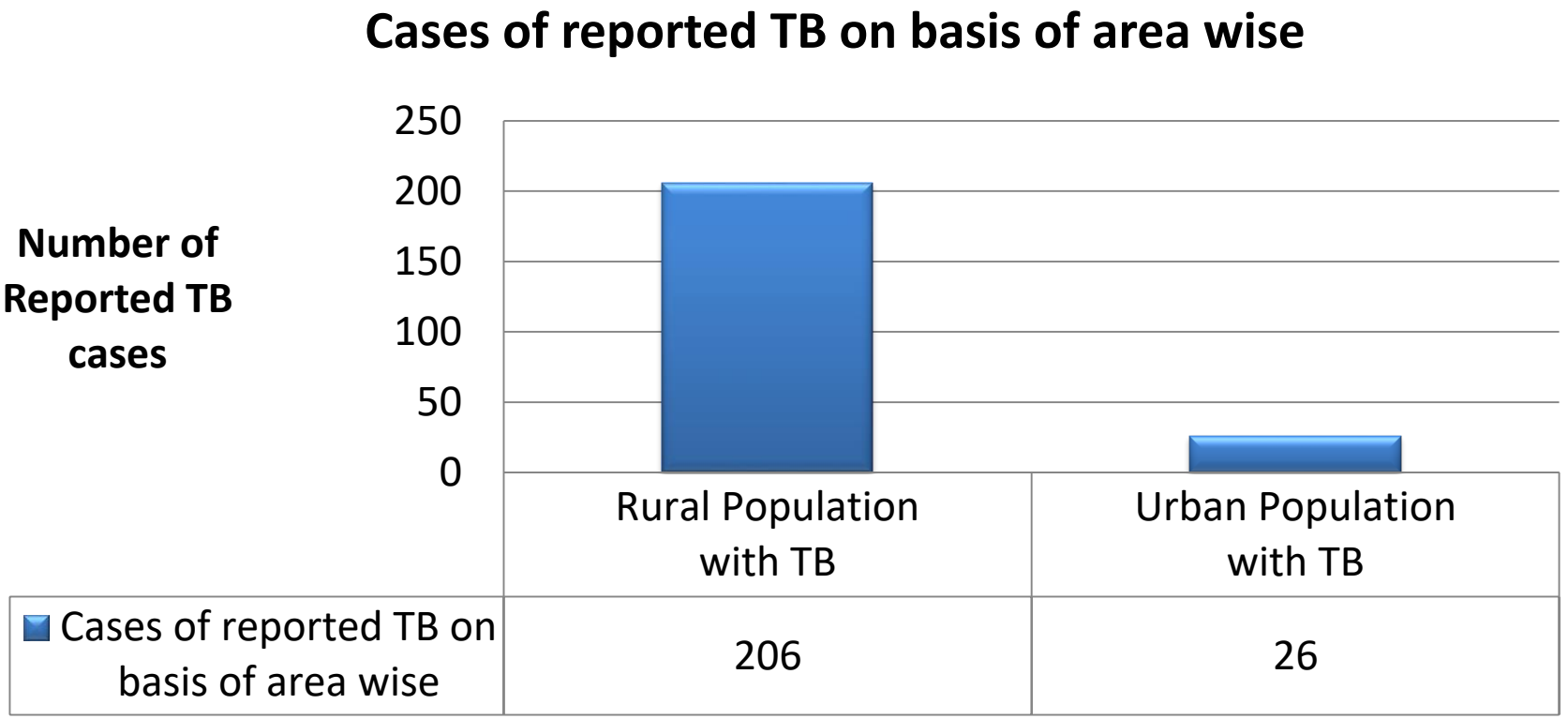


Figure 2: Represents the cases of TB among the rural and urban population in Alirajpur District, MP

In general, people in rural areas are more susceptible to TB infections than in the urban areas

Graph 3

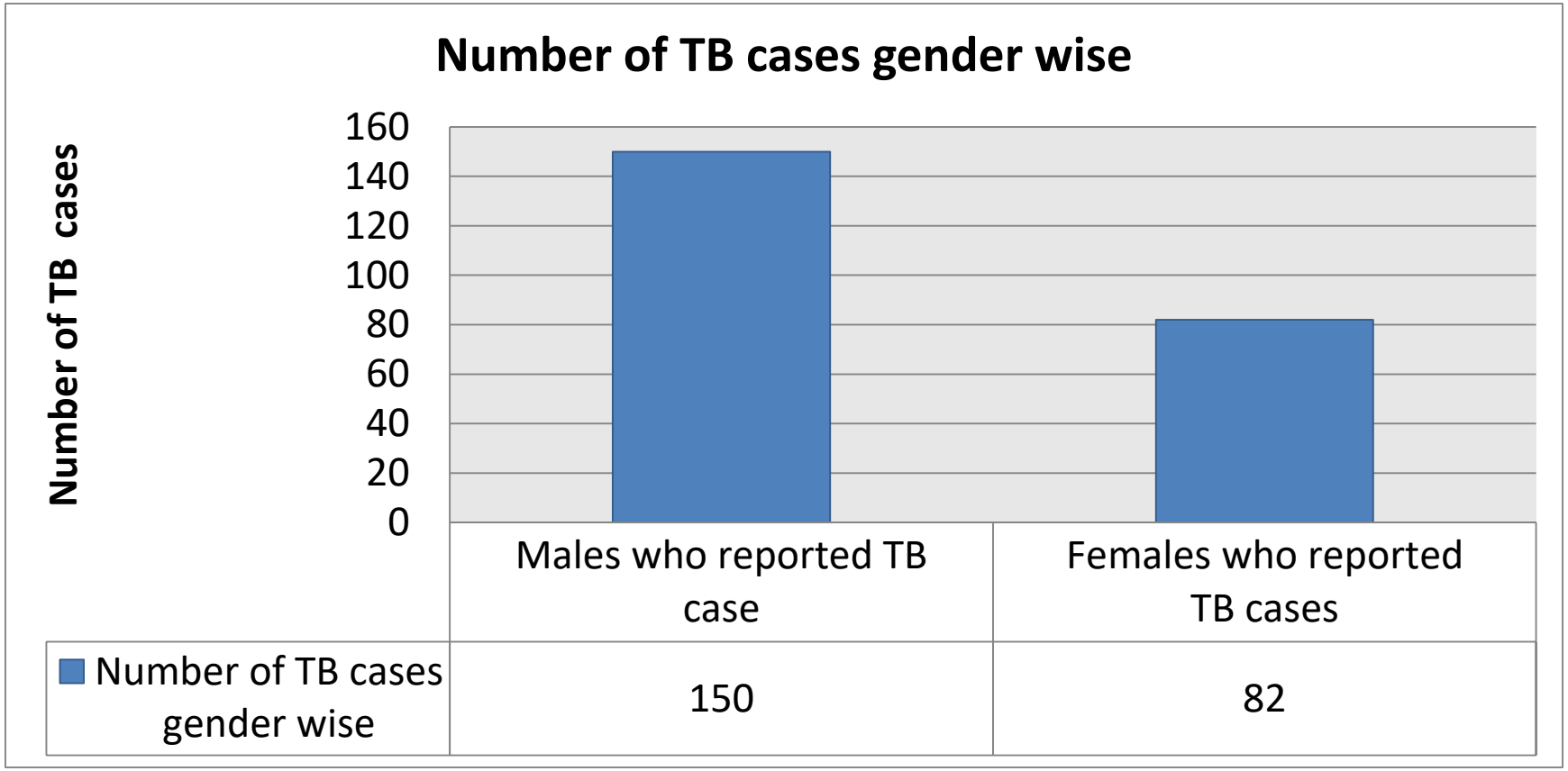


Figure 3 : The numbers of TB cases reported are different depending on gender.

In general, More males than females report and go for TB treatment compared to the females

Discussion

- There is a clear health divide observed from the above results. The rural populations are more susceptible to TB (Figure 2)
- Children in the rural areas are mostly infected with TB due to malnutrition, exposure to smoke and so on. Those children in the rural do not have adequate access to quick medical services like those in the urban areas.
- In connection to that the tribal parents in the rural areas believe in traditional healing methods which are mostly not effective.
- From the results, more men suffer from TB compared to women. This fact may be explained by gender differences in the social pattern of interactions, as men have more chance of social mixing with people outside the home, including people with TB, whereas women are more likely to spend most of their time in the community around their homes.
- Women face more barriers to reach needed treatment for TB than men, which can be attributed to cultural ideas about women's more restricted role in the home and community; this makes them less likely to seek help outside.

Discussion

- With regard to government support, majority of the respondents felt that the government was not doing enough to combat TB. Both the rural and urban populations expressed that the government was acting slowly and TB continues to kill many individuals both from the rural and urban populations.
- For years, the number of projected TB cases in India has increased, while detection has remained low. This can largely be attributed to the fact that patients from the country's urban slums and rural communities often do not elect to enter the public healthcare system.
- There is a great difference between the rural population and urban ways of doing things. Nevertheless, when it comes to health, the rural populations who have chosen to isolate themselves and stay away from civilization need to be respected. Despite the fact it is their will to stay in such conditions, the government needs to offer them with mobile clinics

Results

- The study estimated that out of 232 sample TB registered cases around 88% belonged to Rural Population and 12% to Urban population suggesting a wide gap between the two and rural population is far greater vulnerable to TB due to their lifestyle and lack of help seeking attitude and also due to lack of grass root medical facilities in Rural parts to a greater extent.
- The results showed that the male gender is most vulnerable to TB as 65% of the sample study of TB cases was mail as compared to 35% of female affected TB cases.

Challenges Encountered During The study

- A limitation of the study was that the prevalence was estimated based on a small population and may not be as precise as that would have been obtained from a larger population. The individuals who participated in the study were few hence, the results were not very diversified.
- The rural populations are primitive and naïve and obtaining information from them is a hustle hence their body language was also used to access whether they were giving genuine or false information. In that case, body language may be misinterpreted.
- Language barrier was another difficulty in the study. Most of the individuals in the rural areas do not understand English. Thus, the researcher had to use local language to communicate and in some cases it was challenging to decipher what they were saying.

Recommendations

- Educating the entire public on the early signs of TB is the first step in eliminating the disease.
- Effective control of TB will be possible when government, non-governmental organizations (NGOs) and the private and corporate sectors if all these sectors join and work towards a common goal
- To widen access and improving the quality of TB services, involvement of medical colleges and their hospitals is of paramount importance. Being tertiary care medical centres, large numbers of patients seek care from the medical colleges
- The government needs to offer Rural Population with mobile clinics. At the end of the day, when the herbal medicines do not work, they may opt for those clinics. In return, they may choose to alter their lives particularly when they see the effects of modern treatment

Recommendations

- Government needs to improve the implementation of national TB control program by increasing budget allocation to Revised National TB Control Programme to execute the TB control program more aggressively and effectively.

- Government also need to quickly roll out daily fixed-dose regimen under directly observed treatment short course throughout the country and introduce new diagnostic technology and newer anti-TB drugs.

- The huge private sector in the country, where at least 50% cases of TB report for their treatment, needs to be engaged rapidly and effectively. There is an urgent need for drastic improvement in working of health sector in both public as well private sector. An effective surveillance and follow-up of all TB patients need to be ensured.

- There is also a need for an adequate social, emotional, and nutritional support to all TB patients. Unless all stake-holders come together for a cohesive effort, End TB strategy in India may only remain a distant goal.

Conclusion

- The study concluded that rural populations are more susceptible to TB. Children in the rural areas are mostly infected with TB due to malnutrition, exposure to smoke and so on.
- In connection to that the tribal parents in the rural areas believe in traditional healing methods which are mostly not effective. , more men are vulnerable to TB compared to the women.
- This can further be explained by the gender distinctions in the societal interaction patterns because men have more chances of interacting with individuals outside their homes even those with TB which is largely attributed to the cultural opinions about the women having more restrictions in their functions around their home and community at large; this in turn makes them less likely to ask for help outside.
- More so, the research concluded that the government still has a long way to go in eliminating TB by 2025. In addition, the government has to collaborate with other agencies for national and international in order to achieve the reality of a TB free India.

India to Become Tuberculosis Free Nation by 2025

Thank you