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Involvement of Private Sector in Tuberculosis Control in District Unnao, North India

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Abstract

Tuberculosis remains a leading cause of morbidity and mortality in developing countries. The aim of this study was to find involvement of private sector in RNTCP in District Unnao. A descriptive study was conducted in Unnao district for a period of one year (from January 2011 to September 2014). The secondary data of TB of Unnao district was obtained from District TB Centre by means of Nikshay, web application format for case data collection. 5039 cases were notified in the year 2010, 4887 in 2011, 4433 in 2012, 4174 in 2013 and 4146 in the year 2014. The missed cases increased from 2671 in the year 2010 to 4078 in the year 2014 which got treatment from private sector.It may be concluded that there is a large gap between expected cases of tuberculosis and actual cases.

Keywords: Involvement , Private Sector, Tuberculosis Control , North India

Introduction

Tuberculosis is as old as mankind and is mentioned in Vedas and Ayurvedic Samhitas. Caries spine has been found in Egyptian mummies in 3500 B.C. Robert Koch demonstrated that it was caused by the bacillus, called as Mycobacterium tuberculosis (Koch' bacillus)[1]. The World Health Organization (WHO) has identified 22 high-burden Tuberculosis countries which collectively contribute 80 percent of the global burden of tuberculosis (TB). Tuberculosis is responsible for 5% of all deaths worldwide and 9.6% of adult deaths in the 15-59-year old-economic productive age groups[2]. The private sector accounts for 82 per cent of all outpatient visits at the all India level, with no significant variations by income group[3]. Suspected TB patients also first approach private sector. Private practitioners in India treat over half of the TB cases[4].

In India, a large segment of the population turns to individual or institutional private health care providers (PPs) for health care. The private sector plays an important role in providing health care services[5]. Realizing the importance of the private health care providers in delivering curative services to the majority of the population in India, the TB programme in India has tried to include these providers into the realms of the national TB control efforts. Several initiatives have been undertaken not only to increase the involvement of the private sector in TB control, but also to help align their practices with national and international standards of TB care[6].

RNTCP since implementation followed international guidelines for recording and reporting for Tuberculosis Control Programme with minor modifications. Epi-info based EPI-CENTRE Software was being used for the purpose of electronic data transmission from district level upwards. Initially DOS version was in use and the programme shifted to windows version in 2007. However, the data available at district, state or national level was in aggregated form, with a lead time of >4 months, excluding private sector and neither could help much for TB burden estimation or individual case management or monitoring. To address this Central TB Division (CTD) in collaboration with National Informatics Centre (NIC) undertook the initiative to develop a Case Based Web online (cloud) application named Nikshay.[7]

Materials and Methods

Study Population and Data: The secondary data of selected TB indicators of Unnao district was obtained from District TB Centre.

Total period of study: The period of study was one year from January 2011 to September 2014

Study design: Descriptive study.

It is a descriptive study done to assess the trend and pattern in patients registered under Nikshay, the web based software. This software was launched in May 2012 and has following functional components.[7]

1. Master management
2. User details
3. TB Patient registration & details of diagnosis, DOT Provider, HIV status, Follow-up contact tracing, Outcomes
4. Details of solid and liquid culture & DST, LPA, CBNAAT details
5. DR-TB patient registration with details
6. Referral and transfer of patients
7. Private health facility registration and TB Notification
8. Mobile application for TB notification
9. SMS alerts to patients on registration
10. SMS alerts to programme officers

All the diagnosed cases of TB were taken as study population. The information regarding sputum smear report, type of tuberculosis, category of regimen and treatment outcomes of these patients were analysed. In the process the following technical indicators were calculated.

Technical Indicators:

Case finding and case management indicators:

1. Percentage of smear positive among new TB cases.
2. Proportion of new smear positive cases put under DOTS.
3. Sputum conversion rate for new smear positive TB cases at the end of Intensive Phase (IP).
4. Percentage of new smear positive cases who were cured.

Results

Table 1: Expected no. of Cases for Unnao district

ARTI* of North India (so for Unnao) [8]	1.9%
So, No. of Cases	257 Cases/lakh Population/Year
Population of Unnao[9]	32 lakh
So Expected no of cases would be	32 X 257 = 8824

* Annual Risk of Tuberculosis Infection

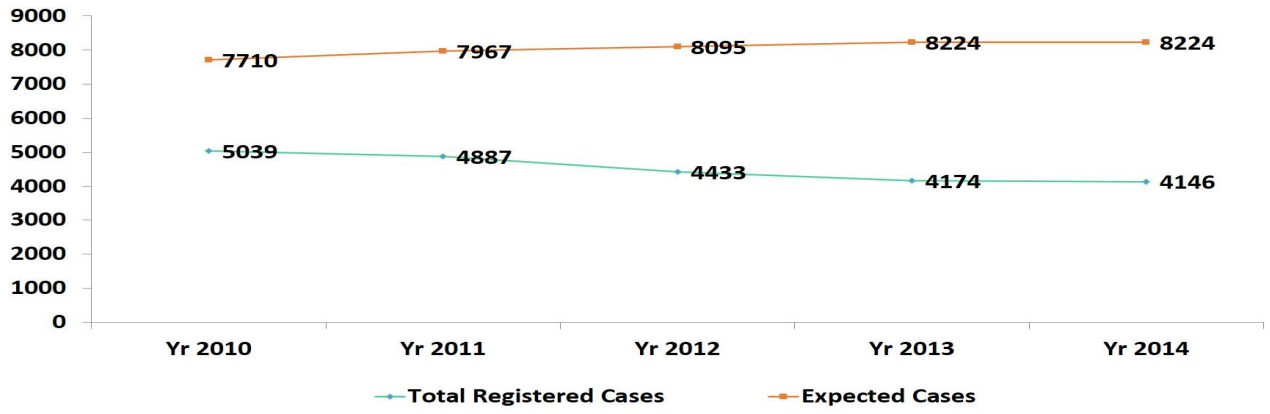

Fig 1: Case Gap in last 5 yrs (Total Registered Cases Vs Expected Cases as per ART) Annual data Unnao

Fig 1. shows the expected number of cases are 7710 (2010), 7967 (2011), 8095 (2012), 8224 (2013) and 8224 (2013). 5039 cases were notified in the year 2010, 4887 in 2011, 4433 in 2012, 4174 in 2013 and 4146 in the year 2014.

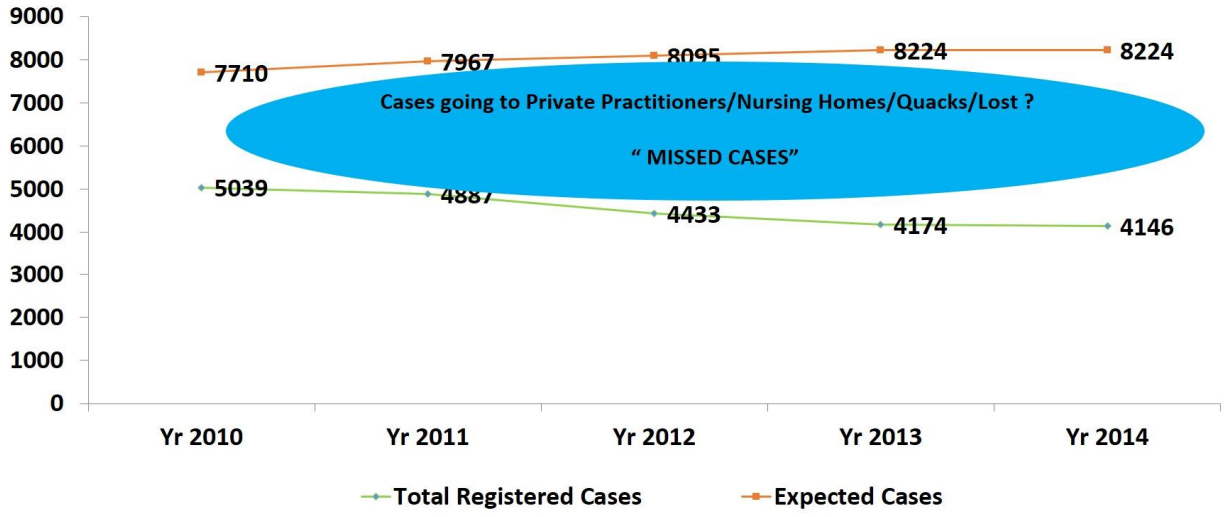

Fig 2: Increasing case gap in last 5 years (Total registered cases vs Expected cases as per ART) Annual data Unnao

Fig 2. shows that the case difference between the expected and total registered cases are the missed cases.

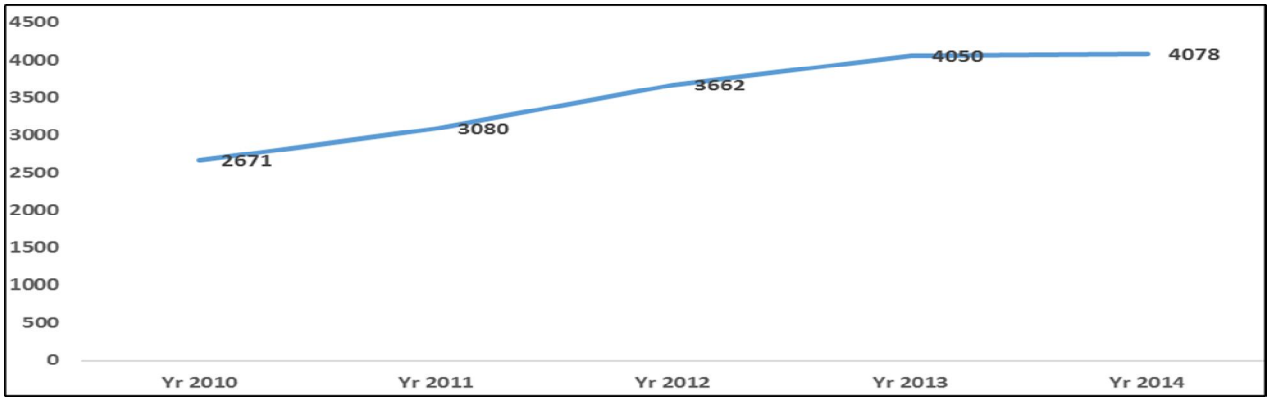

Fig. 3: Increasing Expected no of cases,not diagnosed or diagnosed but not reported ("Missed Cases") to RNTCP Unnao as per ARTI

Fig 3. shows that the missed cases is increasing from 2671 in the year 2010 to 4078 in the year 2014.

Discussion

One of the critical components of the STOP TB strategy is the engagement of all care providers to ensure access to high-quality diagnosis and patient centric care.[10] This is especially important for countries like India where a large, segmented, and unregulated private health care sector caters to the health needs of 75% of the population.[11]

In the present study, 5039 cases were notified in the year 2010, 4887 in 2011, 4433 in 2012, 4174 in 2013 and 4146 in the year 2014. Similar findings were found in another study. [12]

In the present study the missed cases is increasing from 2671 in the year 2010 to 4078 in the year 2014. Similarly an increasing trend was shown in another study conducted in Bangladesh. [13]

Conclusion

There is a large gap between expected cases of tuberculosis and actual cases which are going to the private sector for treatment.

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