

Title: Near real time supervision of home visits under public health action services for notified patients with TB

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Main text

India accounts for more than a quarter of the global tuberculosis (TB) burden¹. Patients with TB are notified under Revised National Tuberculosis Control Programme (RNTCP) using a case-based notification system called as *Nikshay*, which is available as an application in a mobile tablet (hand held computer). One tablet is provided to every senior treatment supervisor (STS - the paramedic responsible for supportive supervision, recording and reporting TB treatment for a population of 0.5 million).

After notification (both from public and private), patients are to receive “public health action support” (PHAS) and this includes the following six components: a) home visit; b) counselling of TB patients and family members; c) monitor treatment adherence and follow-up; d) contact investigation and isoniazid chemoprophylaxis to eligible contacts; e) HIV counselling and testing, and drug susceptibility testing; f) linking to receive cash incentives under the direct benefit transfer or other social security schemes for TB patients. In rural areas, the home visit must be performed by the STS preferably within a week².

Shahdol district, with a predominant tribal population, is located in east Madhya Pradesh (a state in central India)³. Anecdotally, home visits by the STS were not happening. To address this, RNTCP Shahdol developed a rater-based web-form (using Open Data Kit (ODK) software synced to online ONA

platform) to track the 'home visits' on real time basis⁴. After installing this web-form in the mobile tablets and receiving hands on training (July 2018), since August 2018, the STS is expected to carry this mobile tablet during home visit and capture the following information in the ODK web-form: *Nikshay* identifier, date of home visit, geolocation of patient's home, number of household members, number of children <6 years, number of house-hold child contacts screened & received Isoniazide preventive therapy and any other adult house-hold symptomatic contact. Details regarding each component of PHAS are routinely captured in *Nikshay*.

This ODK web-form has the following advantages i) up to 500 records can be captured per month free of cost, this is sufficient for Shahdol district ii) questionnaire can be developed in local language (*hindi*) and iii) it works offline too. The potential benefits are i) near-real time and objective assessment of home visits along with feedback, and ii) identification of hot spots for targeting active case finding. In future, we plan to add variables like bank account details (for direct benefit transfer scheme) and annual income of TB affected households (useful to assess the inequity in the coverage of direct benefit transfer scheme, if any) in the ODK web-form. We plan to conduct operational research using data generated over last year to assess the coverage of home visits among notified TB patients and factors associated.

From Aug 2018 to 31st Aug 2019, out of 1772 notified TB patients, the home visits were made for 669 patients & 1381 home visits were made for earlier notified patients. With this tool, now the programme is aware the pattern of home visits by STS like monthly peak of home visits just before the monthly review meeting, visits at the roadside villages and this information empowers the programme for real time supervision of home visits and timely action. **[Figure]**

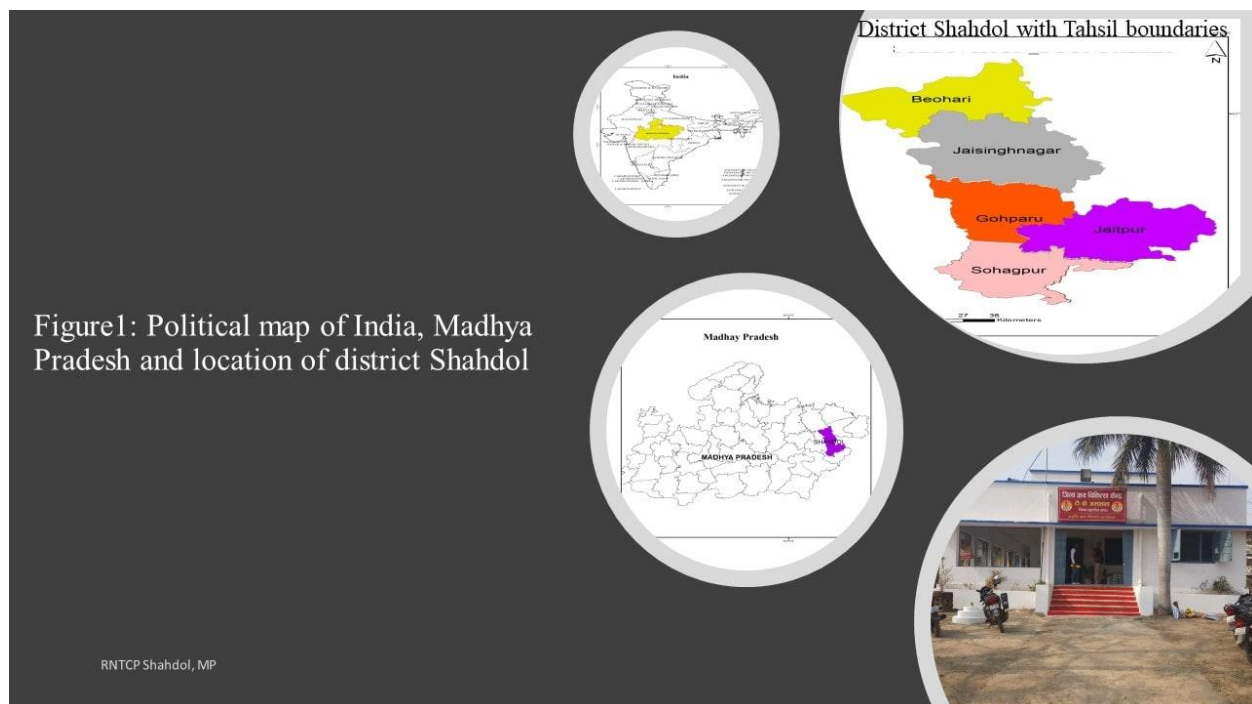
Considering all the STS under RNTCP have a mobile tablet, this strategy has the potential to objectively assess home visits under PHAS and may be considered in other districts as well. This is essential if India has to end TB by 2025, 10 years before the global deadline^{1,5}.

Weblink: <https://enketo.ona.io/x/#roKorPdC>

References:

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RNTCP जिला शहडोल के टीबी कर्मचारी द्वारा मरीज की गृह भेट का फॉर्म

कृपया नीचे मांगी गयी सभी जानकारी उपलब्ध स्थान पर भरो। यदि डिफ़ॉल्ट में से कोई भी जानकारी आप नहीं भरो है तो फॉर्म भरते में जानकारी अधूरी हो सकती है। यदि दूर रास्ता आपको कोई कठिनाई आ रही है तो आप डॉ. आकाश सिंह (7898594977) को संपर्क कर सकते हैं।

* घर के स्थान का GPS कोऑर्डिनेट लेंते

कृपया परीक्षणित करें बहुत जल्द जल्द GPS कोऑर्डिनेट लिखित करें

latitude (x,y °)

longitude (x,y °)

search for place or address



Figure 2: Rater-based web-form for the supervision of home visits of notified TB patients in district Shahdol, MP (2018-19)

RNTCP Shahdol, MP



Figure 3: Home visit of notified TB patients by STS through Mobile app to ascertain PHAS, Shahdol, MP (2018-19)

Figure 4: IPT coverage among House-hold child contacts of notified TB patients in district Shahdol

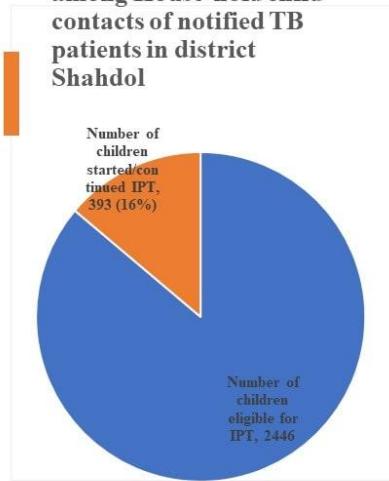


Figure 5: Number of home visits of notified TB patients by peripheral workers/STS from 1st Aug 2018 to 31st Aug 2019 in district Shahdol, MP

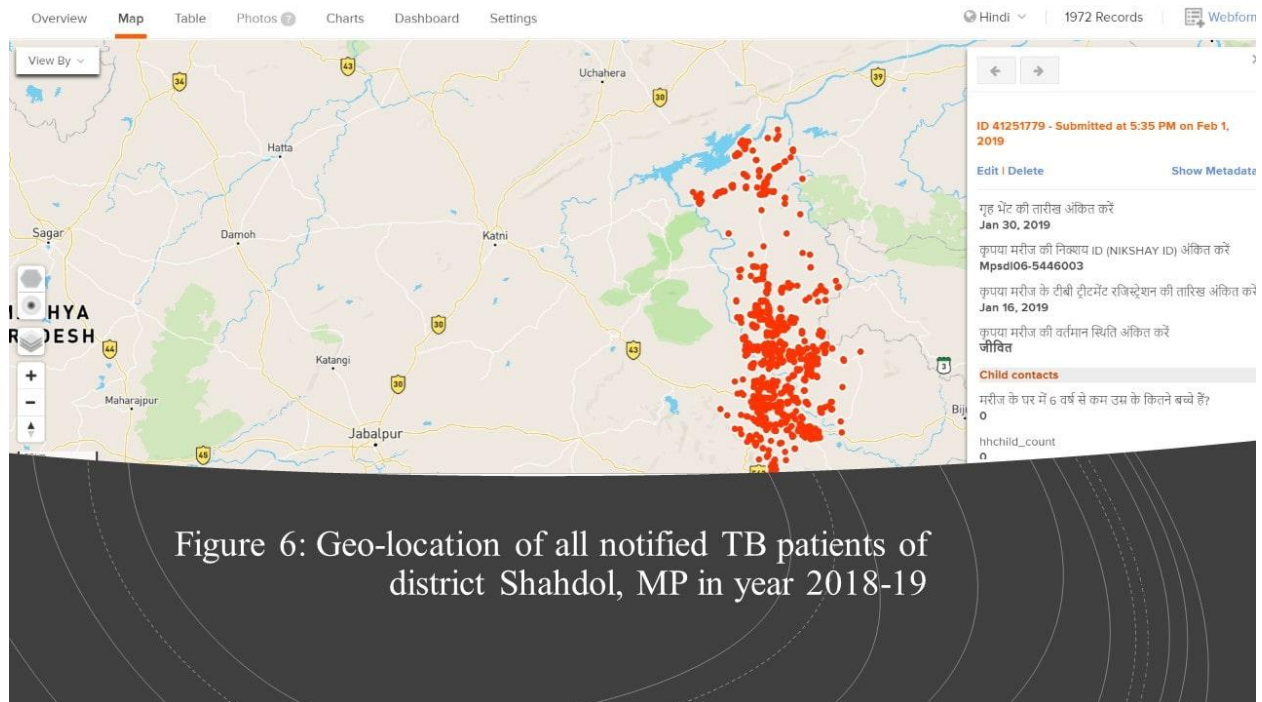
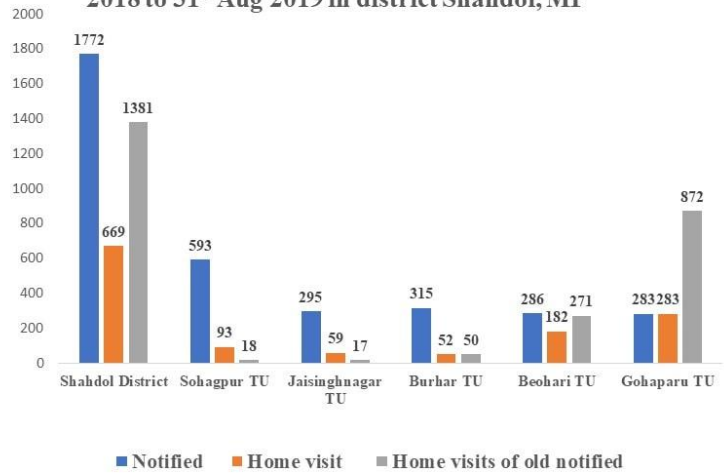


Figure 6: Geo-location of all notified TB patients of district Shahdol, MP in year 2018-19