Project Title: Implementing eCompliance to treat and prevent normal tuberculosis and turn the tap off on Multi-Drug Resistant TB
Organization Title: Operation ASHA

New Delhi, India
April 23-25, 2014

Team Members: Shashank Batra and Neeraj Kr. Singh

Email contact: shashank.batra@opasha.org and Neeraj.singh@opasha.org
Monitoring and (Impact) Evaluation Methods

1. Services being delivered? Creating awareness in the catchment population, Detection of new TB patients and Ensuring treatment adherence through eCompliance.

2. Clients satisfied? Yes. We haven’t received any outcomes yet, to perform any analysis. However, the adherence is quite high since the patients excited by the use of technology.

3. Services reaching target population? Same as 1

4. Can we improve cost-effectiveness? Yes we can by deploying the technology in other blocks of the same district. This will eventually decrease the patients’ cost of travelling to the established centers. We can details about lab alert as well.

1. Health of mothers and children improved? drastic change. Mother and children contribute to over 25 percent of our patients

2. Learning outcomes improved?

3. More people in jobs? 12 people employed, patients return to their respective jobs after successfully completing the treatment.

4. Less poverty? 12 people employed, patients return to their respective jobs after successfully completing the treatment.

1. Why are we doing the project? Our aim is the eradication of tuberculosis. We plan to implement technology to cater various community settings.

2. Who is the target population? General public, we start by focusing on high prevalence areas. We work in 8 states in India at present.

3. Why do we think this approach will work in this context? Shift to technology brings in authenticity and confidentiality. We bring in highly efficient technology to tackle the adherence issue in the TB treatment program. The treatment regimen is very rigorous and a single missed dose is a step closer to MDR TB and ultimately death.

4. What else could we do?
Simplified Results Chain

Theory of Change
1. Program intervention summary

A. Brief description of program activities and outputs:

The program starts at the level of Suspect Finding and actively locating the contacts of existing patients who might test positive for TB. The activities include:

- Active case finding
- Maintaining adherence to treatment regimen.

Output Measurement -
Suspects found,
Increase in detection,
Treatment success rate,
Default rate measure,
No of Jobs created,
Educate people about TB or counselling,
Infection averted
2. Intermediate outcomes and impacts

A. Summary of intermediate outcomes:
   (Examples: increased teacher efforts, health worker attendance, knowledge of service providers, more business start-ups, change in farm practices etc.)
   
   – Retention of Health Workers
   – Awareness created
   – Skills for health workers in form of tech operation

B. Summary of key impacts:
   (Examples: improved pupil learning, youth skills, child and maternal health, employment prospects, reduced poverty, etc.)

   Eradication of TB
   Reducing mortality
   Employment generation for youth
   Child health improvement
3. Summary: results chain

**PROGRAM**

What is the program about?

- Inputs...
  - Tech development
  - Resources
  - Medicines & Diagnostics

- Activities...
  - suspect finding, detection, general operations, maintaining treatment adherence

- Outputs...
  - high detection rate, success rate, low default rate, low MDR rate, overall reduction in the missed doses.

**INTERMEDIATE OUTCOME**

Intermediate outcome indicators?

- Retention of Health Workers – Continued employment
- Awareness created
- Skillset improvement for Health Workers.

**IMPACT**

Impact indicators?

- Nos. – All the metrics – this is to create evidence. (part of output as well)
- Eradication of TB
- Reducing the mortality rate.
4. Data collection: program indicators

A. List program indicators to be collected:
   – Adherence to medication in the form of missed doses.
   – Increased detection in high/low prevalence areas. – measured by increased no of patients enrolled in our system.
   – Successfully treated patients
   – Total number of patients defaulted

B. Method of data collection (e.g. electronic health worker interviews, admin data, etc.):

Data is collected electronically using ecompliance. Data is then Synced to server real-time, and is available in form of comprehensive reports.

C. Frequency of data collection:

Successfully treated patients – Monthly
Total number of patients defaulted - Monthly

Frequency of data depends upon the indicator. Missed doses are collected on a daily basis.
4. Data collection: intermediate and impact indicators

A. List indicators to be collected:
   – Improvement in the case detection
   – Continued employment
   – Social Return on Investment
   – Awareness Created – not measured but is an ultimate impact

B. Method of data collection (e.g. electronic health worker interviews, admin data, etc.):
   Improvement in the case detection – monitored weekly
   Total number of jobs created; semi-literate youth hired – quarterly
   Social Return on Investment

C. Frequency of data collection:
   Social Return on Investment - manual follow ups after the treatment is complete.
   This defines how many patients returned back to their jobs after the treatment was successfully completed. So in turn increasing the household income as well as at the same time reducing the burden on the govt. in form of free medicines and diagnostics.
5. Impact evaluation design

A. Research question:
   • Effectiveness/Acceptability of ecompliance Icon based versus the text based application customized in the local language over a period of 6 months. (As TB treatment spans over 6 months.)

B. Describe the intervention in the (add treatment arms, if applicable):
   Effectiveness/versatility of text or Icon based application. How much can it attract the patient/health workers where locals have never even used any kind of technology. This can be measured using following metrics (this includes both outputs/impact) -

   Increased detection,
   controlling the spread of TB
   Increase in Treatment success rate
   Decrease in default rate
   Minimize missed dosages

   Depending upon the improvement of the metrics in the randomly selected villages we would be able to judge the effectiveness of the intervention/trial.
   With the ultimate aim of control of spread of TB in these areas, we are looking for the most efficient and technology enabled way.

C. Describe the sample size (e.g. 30 schools, 15 pupils each)
   Sample Size 20 Villages
   The sample size would vary as per the TB prevalence rate in that area.

D. Describe the program assignment rule: (e.g. random selection of schools)
   Govt support.
   • We will do research in 20 villages (10 Villages with Icon based application and another 10 Villages with text application). (40 patients in 20,000) – treatment of detected patients
6. Communication of results

**Key Message 1** (e.g. communicate program impacts on child health):

A. What is the nature of the key message?
   Short concise Evidence and Impact base message
B. Who is the target audience?
   Stake Holders and Policy Makers
   General public for awareness, Government, State TB Officers etc.
C. What communication tools will you use (e.g. brief, video, blog etc.)
   We already use social media, blogs etc. we would like stress more on patient stories to connect more with the audience.

**Key Message 2:**

A. To create evidence
B. Not focus only on tangible nos but on the overall picture.
C.