Finding and treating people with TB in the world’s poorest communities

Externally Evaluated Results of Wave 1 Projects
30 innovative approaches to TB case finding implemented by partners in 19 countries.

Results across Wave 1 covered more than 100 million people and showed a 33% increase in TB case detection in just one year.
Every day, those of us working in TB face an uncomfortable truth

Despite the fact that, with the right treatment and care, TB is curable for the vast majority of people, 1.4 million people die from this disease every year.

Why is this happening? Put simply, we fail to reach far too many people—often in the poorest, most vulnerable communities—with quality TB care. Of the estimated nearly 9 million people who get ill with TB a year, 3 million of these go without a proper diagnosis or treatment.

TB REACH aims to change that.

In its first year, TB REACH provided US $18.4 million to 30 projects run by partners worldwide in order to promote innovative new approaches to TB case finding. The results have been impressive. Our partners increased the number of people found with TB by an average of 33%. In more than half of the projects the increase was 50%. This is the evidence we need to show that if we are focused and ambitious, we can reach all those in need!

TB REACH has not only saved lives and averted infections. The initiative has also served as an incubator for innovation. TB REACH has pushed the frontiers of mobile phone technology in health and led the worldwide deployment of rapid diagnostics.

Our work is far from complete. The dramatic success of this first wave of projects has led to an ever increasing number of applications from partners wishing to implement new technologies and approaches. For the sake of the ‘lost’ three million people still waiting for TB care, we must support them in order to pave the way to universal access.

TB REACH is an initiative for our partners and with our partners, and is pushing us all towards reaching the goals of the Global Plan to Stop TB.

Lucica Ditiu
Executive Secretary of the Stop TB Partnership
TB REACH is supported by a CAD 120 million grant from the Canadian International Development Agency.
The TB REACH initiative was launched by the Stop TB Partnership in January 2010 in response to a call from partners and high burden countries to support innovative approaches to ensuring universal detection of TB cases. TB REACH is supported by a CAD 120 million grant from the Canadian International Development Agency (CIDA).

About nine million people around the world become ill with TB each year. About one-third of them fail to get an accurate diagnosis or effective treatment and are more likely to die from this curable disease.

TB REACH offers a lifeline to people among this missing 3 million by supporting initiatives which look for new ways of finding them. TB REACH:

- Offers one year grants to TB programmes and partners for technically sound, innovative and cost-effective TB case detection interventions
- Provides fast track funding and results
- Focuses on poor, vulnerable and marginalized groups, and populations with limited or no access to TB control services
- Encourages local innovation and bold solutions that may not be funded elsewhere
- Requires detailed reporting on technical and financial progress and case finding data
- Ensures external monitoring and evaluation of all projects
- Delivers results quickly, for improved TB care.

This report describes the externally evaluated results from the first wave of TB REACH Funding.
WHO estimates that only 66% of incident TB cases are reported. This translates into 3 million new TB cases being missed every year.
The WHO estimates that only 66% of TB cases are reported. This translates into about 3 million people with TB being missed every year. Without effective treatment these people continue to spread infection and many of them die from this curable disease. Equally troubling is the fact that the absolute number of TB notifications decreased from 2009 to 2010.

The poor and vulnerable suffer most. Not only are they disproportionately affected by TB, but they are also less likely to have access to high quality TB care. National TB Programmes (NTPs) generally only reach people who arrive at designated health facilities with TB symptoms.

The barriers to accessing care are cultural, geographical and financial. These include poor diagnostic services, drop-outs during the diagnostic process, substandard care outside of the NTP, and ineffective screening. It is clear that the current approach to TB case detection does not reach millions of people and will limit the impact on the TB epidemic.

In order to address these gaps and the stagnation of case detection, new approaches and partners are needed.

TB REACH encourages innovative and new ideas that can show results quickly and then be scaled up with other funding if successful.

TB REACH provides one year grants through a competitive selection process.

---

**It is clear that the current approach to TB case detection does not reach millions of people.**

**The unreached millions**

The WHO estimates that only 66% of TB cases are reported. This translates into about 3 million people with TB being missed every year. Without effective treatment these people continue to spread infection and many of them die from this curable disease. Equally troubling is the fact that the absolute number of TB notifications decreased from 2009 to 2010.

The poor and vulnerable suffer most. Not only are they disproportionately affected by TB, but they are also less likely to have access to high quality TB care. National TB Programmes (NTPs) generally only reach people who arrive at designated health facilities with TB symptoms.

The barriers to accessing care are cultural, geographical and financial. These include poor diagnostic services, drop-outs during the diagnostic process, substandard care outside of the NTP, and ineffective screening. It is clear that the current approach to TB case detection does not reach millions of people and will limit the impact on the TB epidemic.

In order to address these gaps and the stagnation of case detection, new approaches and partners are needed.

TB REACH encourages innovative and new ideas that can show results quickly and then be scaled up with other funding if successful.

TB REACH provides one year grants through a competitive selection process.
The TB REACH secretariat is comprised of a small team at the Stop TB Partnership secretariat.

An external Proposal Review Committee (PRC) independent of the Stop TB Partnership Secretariat reviews each eligible proposal and makes selections based on its technical merits, the applicant’s capacity to achieve the stated objectives and outcomes, and the financial competence of the proposal and proposing organization.

A Programme Steering Group (PSG) is comprised of prominent TB leaders and implementers as well as a community representative and provides guidance on the strategic and policy direction.

All projects are supported by an external agency for Monitoring and Evaluation (M&E), which reviews and validates all data reported to TB REACH through quarterly reports. The selection of the M&E agency was done via an open bidding process. HLSP of London in partnership with KIT of Amsterdam was selected for the M&E.
Call for proposals

The first call for proposals was announced on 25, January 2010.

Applicants were allowed six weeks to submit applications for one year of funding for up to 1,000,000 USD to improve TB case finding through innovative approaches in populations with limited access to services.

Selection process

A total of 192 applications were received for the first call for proposals, reflecting both keen interest in TB REACH as well as the need at country level despite the presence of The Global Fund and other donors. The TB REACH Secretariat conducted the initial screening of proposals for completeness and eligibility. The eligible applications were reviewed by the PRC during a week-long meeting. The recommendations of the PRC were then endorsed by the Executive Committee of the Stop TB Coordinating Board in May 2011.
Eleven were headed by our international NGOs, nine by National or State TB Control Programmes, six by domestic civil society organizations/NGOs, three by academic institutions, and one by the International Organization for Migration.

The total value of the grants approved was 18.4 million USD with a range of 151,000-1,000,000 USD.

In total, 19 different countries had at least one TB REACH project. There were 19 projects approved in WHO’s Africa Region, nine in the Eastern Mediterranean Region, two in the Western Pacific Region and one in the South East Asia Region.

The projects covered a total population of 114 million measured by the catchment areas where NTP data was collected.
Projects implemented a range of different interventions to address local barriers and challenges in TB case detection. Some of the project interventions:

- Introduced new, more sensitive, and rapid diagnostics including the first use of Xpert MTB/RIF on a mobile van for TB/HIV screening in a programmatic setting, LED microscopy and digital x-ray.
- Offered incentive schemes for improved screening and TB case identification for community workers, laboratory personnel and other health staff.
- Engaged community workers and volunteers in TB case detection and care.
- Used mobile phones to facilitate case detection, tracking of patients and communication of laboratory results.
- Innovated transport mechanisms for sputum specimens among remote populations, e.g. using horse riders, canoes, etc.
- Implemented active investigation of contacts of TB cases
- Systematically screened migrants, prison inmates, urban slum dwellers, indigenous populations and clinical risk groups using different approaches.
- Brought mobile outreach clinics to remote areas with poor access to care
- Promoted community awareness for early and appropriate action for TB symptoms
- Intensified TB case finding in people living with HIV

Projects began implementation as early as October 2010, although their start dates varied according to the date upon which their grant agreements were signed with the TB REACH Secretariat. Progress was tracked through standardized M&E reporting.

The projects covered a total population of 114 million
All TB REACH grantees submit quarterly reports in a standardized format. The reports are reviewed by the M&E agency which reports to the TB REACH Secretariat. Quarterly reports contain official NTP reporting data, project-specific screening indicators, potential external factors influencing case finding, and financial expenditures.

There are a number of key concepts that are used to evaluate all TB REACH projects:

**Project duration:** All TB REACH projects are evaluated over the course of 12 to 18 months.

**Target population:** The population to which case finding activities/interventions are targeted (PLWH, migrants, SS- TB suspects, prisoners etc.)

**Evaluation population:** The evaluation population is defined by one or more NTP reporting facilities, i.e. Basic Management Units (BMUs), where the interventions are implemented. All key TB REACH evaluation is based on NTP data – not project data.

**Control population:** A population that should be similar to the evaluation population, but not benefiting from the TB REACH intervention defined by one or more NTP reporting facilities (BMUs). Nineteen projects identified and tracked data on control populations during Wave 1.

**Direct yield:** The number of cases the project reports detecting through its intervention.

**Additional TB cases:** Are analysed in two ways:

- **Additional cases detected:** The difference in the number of cases in the evaluation population during the intervention year and in the corresponding reporting period immediately before the intervention.

- **Trend adjusted additional cases:** Since there is likely to be an influence of the underlying trends of case detection in the evaluation population an adjustment for trend was calculated using 3 years of historical case finding data for each project.

Among cases reported to the NTP, only cases detected AND put on treatment are counted in the reports to TB REACH. TB cases that are found by the project but not linked to an NTP register for TB treatment are not included in the M&E reporting as additional cases.
In the 19 projects with control populations, our partners increased case detection by 37.5%
This report covers case notifications through March 2012

Among the 24 projects with additional cases, the TB case detection increased by 33%.

Out of the 28 grantees that implemented projects for at least 4 reporting quarters, 24 detected additional cases in the evaluation population. The remaining four projects could not demonstrate an increase in the number of cases detected at the evaluation population level. The results below are summarized for each of the analyses done for the 28 projects. Among those 24 projects with additional cases, the TB case detection increased by 33%.

In 19 projects a control population was used. Overall, the numbers of smear positive TB cases reported in the control populations were basically unchanged during TB REACH implementation, going from 24,410 pre-TB REACH to 24,858, a change of 1.9% while the evaluations areas overall saw gains of over 40%.

### Additional Sputum Smear Positive Cases Detected, TB REACH Wave 1:

<table>
<thead>
<tr>
<th></th>
<th>SS+ Cases at Baseline</th>
<th>SS+ Cases with Intervention</th>
<th>Trend Adjusted Additional Cases</th>
<th>% Increase from Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 28 projects</td>
<td>66413</td>
<td>84456</td>
<td>17223</td>
<td>25.9%</td>
</tr>
<tr>
<td>24 projects with additional cases</td>
<td>52185</td>
<td>70678</td>
<td>17241</td>
<td>33.0%</td>
</tr>
<tr>
<td>19 projects in the evaluation areas</td>
<td>37924</td>
<td>53823</td>
<td>14226</td>
<td>37.5%</td>
</tr>
<tr>
<td>19 control areas</td>
<td>24410</td>
<td>24858</td>
<td>472</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

* One project, (NTP Burkina Faso) was delayed and started activities only during the last three months of 2011. In 1 project (Yemen) the TB notifications could not be validated by the M&E agency mainly due to civil unrest.
**Trend adjusted additional cases:**

Among all 28 projects, the number of expected cases in the intervention areas would have increased 1.2% based on historical trends or 824 cases. With the TB REACH interventions a 25.9% increase was observed meaning 17,220 more people were put on TB treatment than would have been expected.

Among projects that found additional cases 124,164 cases of all forms of TB were detected and 19,192 were additional.

This suggests that the interventions did not simply better detect smear positive cases from what were previously unconfirmed cases (smear negative), but rather found many more people that had been suffering with TB.
Based on historical trends, the number of cases would have increased by 1.2%. With the TB REACH interventions a 25.9% increase was observed. This equates to:

- Additional cases expected based on historical trends: 1.2%
- Additional cases actually found and put on treatment: 25.9%

Cumulative additional TB cases put on treatment by quarter, TB REACH Wave 1
TB REACH offers a unique package to partners. The ability to innovate and use locally created solutions to improve access to care with funding that matches the need for rapid implementation and results.

All projects sign a Grant Agreement Letter (GAL) which stipulates the agreements for the duration of the project including reporting and the financial commitments.

Prospective applicants are screened for a history of fiscal responsibility including past audit reports and the capacity to manage significant sums of money and implement in a relatively short period of time.

The funding for TB REACH grantees is paid in a series of installments based on deliverables. A proportion is paid upon signing the GAL to allow start-up costs such as hiring and procurement to be completed. Further payments are made based on the reception of historical baseline data and completed quarterly reports approved by the M&E agency as well as signed financial reporting statements received by the Stop TB Partnership. A final payment of 10% is made after the receipt of a final report from the grantee as well as an audited financial report from an accredited firm.

For the 30 projects in wave 1 a total amount of 18.4 million USD was approved. As of March 31st, 2012 the projects reported spending a total of 14.9 million USD.
TB REACH offers the ability to innovate and use locally created solutions to improve access to care.
TB REACH wave 1 projects provided access to TB care for over 19,000 people that would not have been found by TB programs at an average cost of less than 800 USD. Some of the best projects found additional cases for as low as 145 USD and 7 projects found additional cases for less than 500 USD a case.

Using standard estimates, these TB REACH projects together saved more than 13,000 lives and prevented almost 200,000 people from becoming infected with TB.

Increased access to life saving services reaching the poor and vulnerable was provided for less than 20 cents a person in the areas TB REACH projects served.
The results from the first wave of TB REACH projects show a diversity of partners and interventions in a variety of settings with a wide range of results. Overall, large gains in case detection in a short one-year time period were possible through the TB REACH mechanism even in settings with stagnating case notification trends and after adjusting for historical improvements in case notifications. Populations with limited access to care were linked to services through innovative methods and TB case notification significantly improved.

In comparison to other large funding mechanisms, the rapid implementation plan can help direct interventions when they are needed, and not two years or longer after a proposal was developed. Rapid selection and funding of innovative ideas and quick turnaround of results verified by an external agency makes TB REACH different from other funding sources.

Looking Ahead for TB REACH
Because TB REACH encourages innovation, and working in some of the most difficult settings and trying to reach those who have poor access to care, there will be some failures. Indeed, a few of the Wave 1 projects did not have a positive impact on TB case detection despite significant effort. However, these projects did have other benefits related to strengthening of TB care and found many cases before they would have been otherwise detected – this early detection of cases will have an impact on transmission. The work done by our partners shows that with extra effort many people suffering from TB can be linked to treatment who are currently not reached. These early successes have led to a huge increase in demand and we have received in subsequent waves many more applications deemed worthy of funding than resources permit.

Currently, TB REACH is supporting the roll out and scale-up of Xpert MTB/RIF technology in 30 projects in 16 countries. To streamline procurement and logistics and ensure better coordination with the manufacturer, TB REACH, through the Global Drug Facility, procured directly the equipment for the projects with short lead times and is currently the largest multi-country supplier of the tests.

TB REACH would like to continue to support the work of innovative partners in the field and expand our model to look at specific populations that are at high risk of developing TB. Initiatives such as TB/HIV, TB and Mining, mHealth, childhood TB are all possible areas where TB REACH can bring local innovation to improve TB care. To continue to support partners providing innovative approaches providing access to millions of people, TB REACH needs to be adequately funded.
The Stop TB Partnership would like to recognize the work of all our Wave 1 partners that made these achievements possible. We would also like to thank the government of Canada for its strong commitment to the global fight against TB.

Contact Information

tbreach@who.int

Photo credits:
Miguel Bernal
Jacob Creswell
Sam Nuttall
Vanessa Vick