

TB REACH Wave 6 Improving TB treatment adherence and outcomes

Lessons learned from rejected Wave 5 applications

The ‘Improving TB treatment adherence and outcomes’ funding Category was offered for the first time during the Wave 5 call for proposals (2016). However, the response from partners was not what was expected – in both number of applications and quality of submissions. Below is a summary of the feedback provided the independent Proposal Review Committee (PRC) on the rejected Wave 5 applications in this Category to help prospective Wave 6 applicants learn from these common critiques and submit stronger proposals.

Enrolment and impact evaluation timelines were not clearly articulated

TB REACH grants typically last for 18 months. This includes a recommend three-month project start up or preparation phase, followed by six to nine months of patient recruitment (enrolment). This allows time for projects to deliver the intervention throughout each patient’s full treatment course (or to a standard interim outcome milestone [e.g. loss to follow up at the end of intensive phase, 6-month culture conversion, etc]. Although projects may focus on improving dosing implementation (regularity of medication taking), the package of interventions will be evaluated by TB REACH on its ability to improve TB treatment outcomes (either final or interim outcomes). This will almost certainly require the project to track individual-level patient outcome data, rather than using aggregate NTP data, which are often reported with a 1-year delay. A project wrap up phase is also recommended, which can be used to disseminate results and/or to begin planning for scale up under a new TB REACH grant or other resources.

Q1			Q2			Q3			Q4			Q5			Q6		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Planning																	
			Enrol 1			Follow up											
						Enrol 2			Follow up								
									Enrol 3			Follow up					
																Wrap up	

Mixing of TB patients types during enrolment

Mixing patients who are taking different medicines or regimens, who are facing different challenges with respect to adherence, and who have different follow up schedules makes measuring impact on TB treatment outcomes very difficult (or impossible). Given the fast-track project timelines and the initiative’s focus on impact measurement, TB REACH recommends focusing your enrolment / intervention on a single patient type – either [TB infection](#), drug-susceptible TB or drug-resistant TB. Interventions targeted towards TB/HIV patients are welcome, but TB REACH still recommends they focus on one type of TB treatment.

Target enrolment and/or expected impact is too low; costs not rational

This was the most common critique from the PRC and while enrolment, impact and cost are distinct issues, they are also closely linked. For TB REACH, acceptable enrolment size correlates with expected impact (additional treatment successes) and the value of funds being requested. In previous funding cycles, TB REACH set a cost per additional notification, but this has since been removed. Every intervention and setting has different cost bases which influence budgeting, and each country has different thresholds for declaring a life-saving intervention cost effective. However, interventions with extremely high costs per additional treatment success and/or interventions whose costs are not rationally related to the cost of the medications themselves are less likely to be funded as scale-up of these initiatives will be harder to promote.

Impact is heavily dependent on the target population in which the project works and baseline treatment success rates. Areas where treatment success rates are already high may struggle to document substantial gains and thus, TB REACH strongly encourages applicants to prioritize populations where treatment success rates are low or populations where treatment success rates have been over-estimated and a new, more

accurate baseline can be established. Moderate gains in treatment success (e.g. 85% to 90%) should be compensated for by enrolling a large number of patients, so that a substantial number of additional treatment successes can still be achieved. The following is a fictitious example of the concept described above. 400 patients are to be enrolled in an intervention in a district with a baseline treatment success rate of 85% (340 treatment successes expected using baseline rate). The proposed project aims to improve this population's treatment success rate to 90% (now 360 treatment successes expected), meaning 20 additional treatment successes (from 340 to 360 under the intervention). If the budget requested is 400,000 USD, the crude cost per additional treatment success would be 20,000 USD. This example is overly simplistic, but it has been included to illustrate that the proposed gains of this fictitious intervention are too small to justify TB REACH funding.

Proposed interventions were not innovative

Many Wave 5 proposals focused on rolling out a package of services (e.g. food baskets, counselling, loans, etc) which is already known to improve patient treatment adherence and outcomes, and overall patient wellbeing. Most countries set aside money from their Global Fund allocation for these activities, though this support likely focuses on a specific sub-set of patients and the implementation and coverage of these programs are often an issue. In Wave 6, TB REACH will have a focus on the roll out and evaluation of [digital adherence monitoring technologies](#).

Proposing technology interventions with a documented lack of impact

Many applications proposed using SMS reminders to improve pre-treatment loss to follow up, attendance at appointments, medication taking, etc. However, a small, but growing body of literature shows that SMS reminders alone do not improve TB treatment outcomes. TB REACH's independent Proposal Review Committee (PRC) is *unlikely* to select proposals aiming to evaluate the roll out of SMS reminders unless there is a clear justification how the proposal's activities and expected impact are different from the published literature. Several other [digital adherence monitoring technologies](#), such as 99DOTS, evriMED (electronic dose monitor) and video observed therapy (VOT), have shown promise, but no/few Wave 5 proposals were submitted seeking to demonstrate and evaluate their roll out.

Technology was used to entirely replace health care worker interactions

Several projects requested funding for the roll out of [digital adherence monitoring technologies](#), such as video observed therapy (VOT) and SMS reminders, and applicants presented these projects as reducing health worker and health system investments in patient care. Particularly in light of the growing number of patients self-administering their medications, the PRC felt strongly that such adherence monitoring technologies should be used to build a detailed dosing history for individual patients, so data-driven decisions about differentiation of TB care services could be made that would maximize treatment success rates. Applications for rolling out digital adherence technologies in Wave 6 should present the work in a patient-centred manner – reducing barriers and costs faced around DOT, and demonstrating the feasibility and impact of smartly/efficiently allocating health worker time and health system resources for supporting patients most in need, etc.

Scalability of intervention is unclear

Since many applicants in Wave 5 were single site hospitals/NGOs, the path for scaling up the coverage of treatment support interventions was often poorly articulated. Many applicants stated that other partners would adopt the intervention if it proved successful, but then provided no detail on how this would happen. Most technology projects must make an up-front investment in equipment and it was often not made clear how these investments would be used or replicated as others scaled up the intervention. TB REACH would strongly encourage applicants who directly manage a large volume of patients across multiple sites, particularly NTPs and domestic NGOs, to apply in this Category of funding so there are natural ways to scale up coverage with additional TB REACH funding in Wave 7.