

CASE STUDY

Making TB care more patient-centred in Pakistan and Nepal



Research by the Association for Social Development (ASD) in Pakistan and Health Research and Social Development Forum (HERD) in Nepal has led to effective, patient-friendly tuberculosis (TB) care delivery being adopted in both countries.

The strategies developed by ASD and HERD informed the 2006-2015 Global Plan to Stop TB by replacing the requirement for directly observed treatment (DOT) with a more patient-centred approach that includes supervision and support by family and community members.

Our research

Research shows that existing TB treatment strategies have led to patients experiencing unemployment, poverty and debt. We tested whether flexible strategies could produce cure rates as good as, or better than daily health centre DOT, and be more patient-friendly.

We planned from the outset that if the strategies we developed proved effective, we would use our established relationships with National TB Programmes to encourage changes in policy and help implement such strategies nationally.

Our research showed that home-based care was:

- feasible under routine low-income country TB programme conditions;
- as effective as health centre-based care; and
- much more acceptable to patients than health centre-based care.



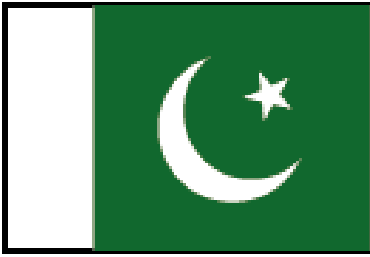
Without our research, and development support, it is unlikely that these changes to care would have occurred. These strategies have also been adopted in other low-income countries such as Swaziland.

What is directly observed treatment?

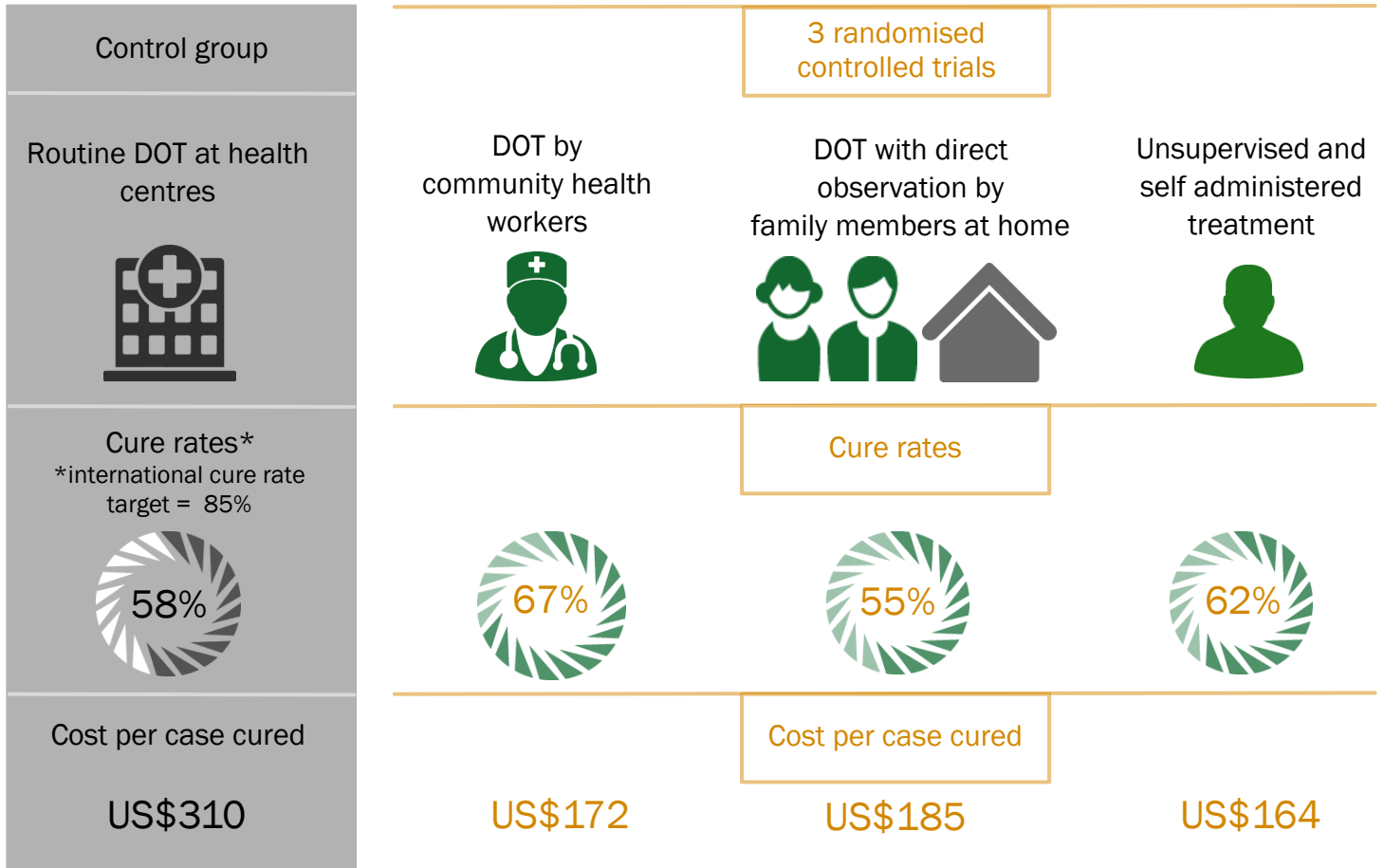
Until 2006, the World Health Organization's (WHO) TB control policy advocated that patients attend a health centre every day for at least the first 2 months of treatment, for observed treatment, supervision and support. This strategy causes substantial hardship to poor patients, severely disrupting their ability to work since health centres are generally only open during working hours.

During treatment, many employed TB patients lose their jobs; daily labourers cannot get work; farmers struggle to access clinics; household duties, including childcare, are disrupted; and school and college students have difficulties continuing their studies.

Health centre DOT ignores the imperatives of daily survival for poor people, and forces many people to seek care in the private sector. This has poor treatment outcomes, leading to further illness and death, and continuing transmission of TB.



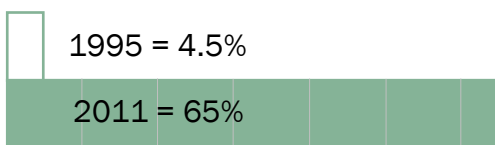
In Pakistan, we used individually randomised controlled trials and allocated patients to 1 of 3 trial arms. We compared cure rates and costs associated with routine DOT at health centres with more patient-friendly treatment supervision and support by community health volunteers or family members at, or near, the patient's home.



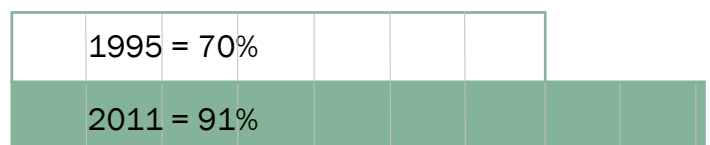
Impact on health and welfare

Our research has also contributed to improved overall TB treatment outcomes in Pakistan. Case detection and TB treatment rates improved between 1995 and 2011, and mortality fell by 31,000 to 59,000.

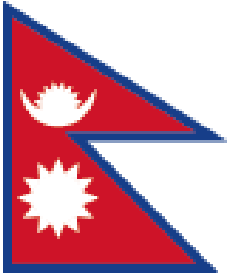
This has resulted in improved care for 300,000 people with TB in Pakistan annually, helping protect 177 million people (WHO numbers) in Pakistan^{1, 2}.



TB case detection rates in 1995 and 2011 in Pakistan



TB treatment success rates in 1995 and 2011 in Pakistan

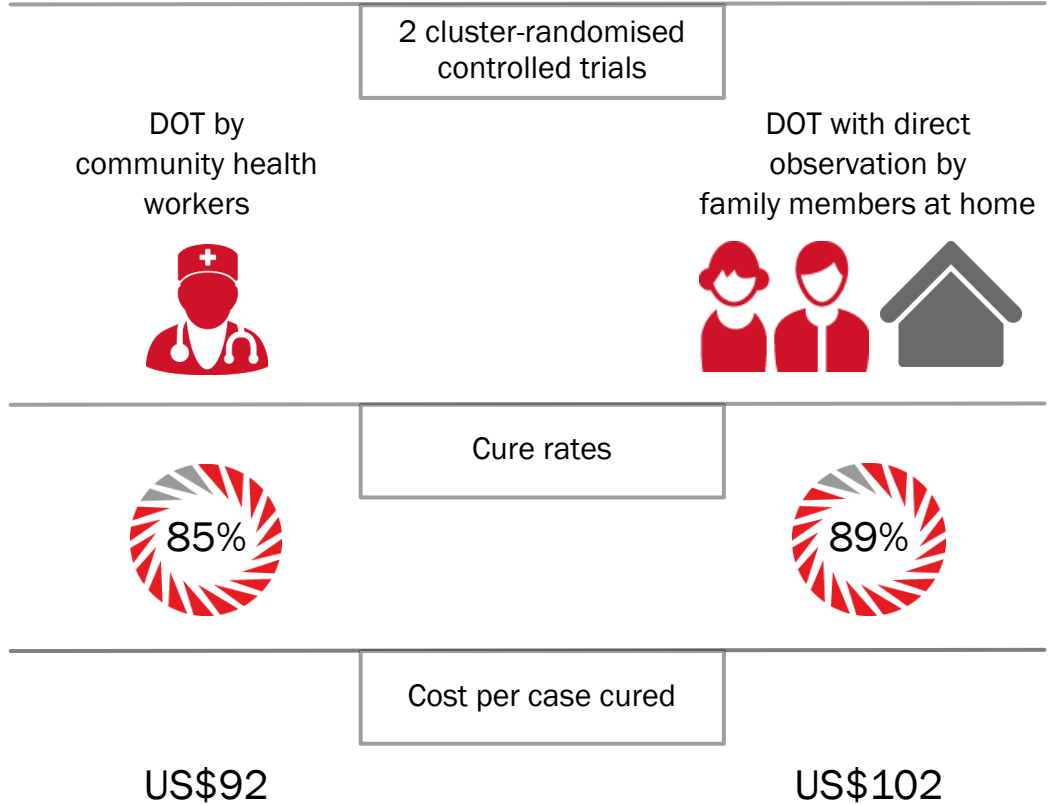


In Nepal, we used a cluster-randomised controlled trial to investigate the impact of patient-friendly strategies for treatment supervision and patient support. The trials were in hill and mountain areas of Nepal, where standard daily health centre DOT was not feasible because of the lack of accessible clinics. We allocated villages to 1 of 2 trial arms.



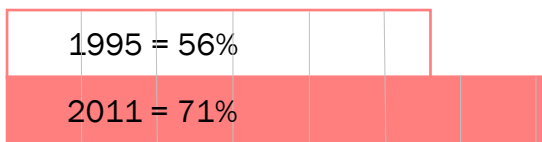
The 2 strategies we investigated were similar and affordable to the Nepal NTP strategy.³

Costs to patients using family/community health worker DOT were US\$32 lower than using standard health centre DOT, a reduction of nearly 50%.³

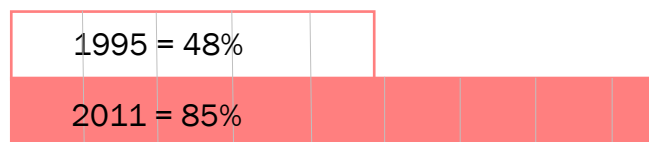


Impact on health and welfare

Our research has also contributed to improved TB treatment outcomes in Nepal. Case detection and TB treatment rates improved between 1995 and 2011, and mortality fell by 900 to 7,000. This has resulted in improved care for 30,000 people with TB in the mountain/hill districts of Nepal annually, helping protect 30 million people from TB infection in Nepal^{4, 5, 6, 7}.



TB case detection rates in 1995 and 2011 in Nepal



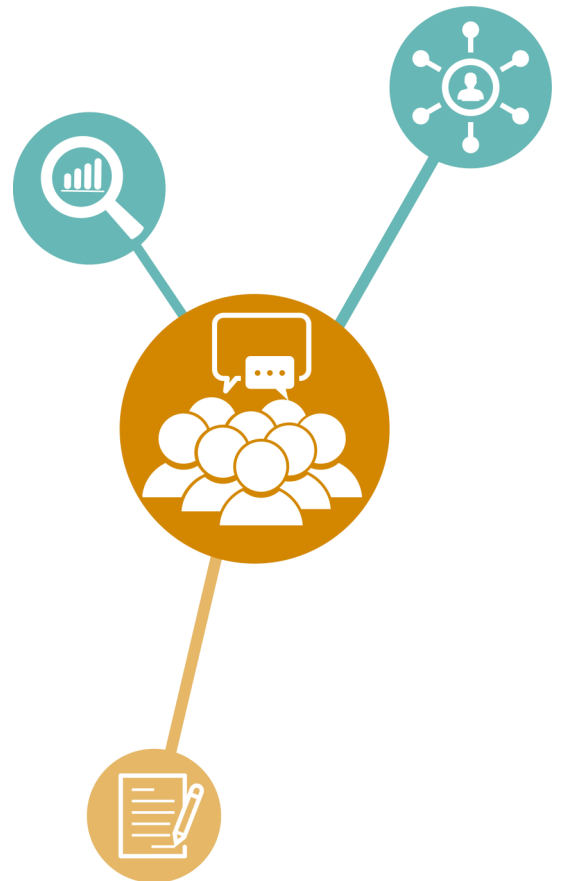
TB treatment success rates in 1995 and 2011 in Nepal

Our research and uptake strategy has led to better, evidence-informed, public policy and improved public services in Nepal and Pakistan for people with TB. Our partners were involved in developing draft national policy and operational plans. National guidelines have been revised and adopted to take account of our findings, and our patient-friendly approaches have been implemented in both Nepal and Pakistan. We have also jointly developed training materials and courses that have been used by the TB Programmes to train health workers in the new strategies.

Our embedded approach to impact

To ensure our research influenced policy and practice at large scale, we adopted a deliberate strategy of working closely with National TB Programmes from the outset. Much of our research uptake was made possible through our partnership with in-country TB Programme managers. They were involved from conception to completion, including joint development of the interventions to be tested, regular briefings and discussions of likely implications of findings.

This strategy develops trust, ensures our research addresses national priorities, ensures findings are relevant for policy makers, promotes policymakers' ownership of the research findings, and encourages joint development of subsequent policy, operational guidelines and training methods and materials.



References

1. National TB Control Programme Pakistan. (2008, revised 2015). [Desk guide for doctors](#).
2. National TB Control Programme, Ministry of Health, Government of Pakistan. (2008) [Refresher module for doctors](#). See p18 for role of community health workers in TB patient support.
3. Mirzoev T, et al. (2008) Community-based DOTS and family member DOTS for TB control in Nepal: costs and cost-effectiveness. Cost Effectiveness and Resource Allocation [doi:10.1186/1478-7547-6-20](https://doi.org/10.1186/1478-7547-6-20)
4. Nepal Ministry of Health and Population. (2010) [National Strategic Plan – Implementation of Stop TB Strategy 2067/68 - 2071/71 \(July 2010 - July 2015\)](#).
5. Nepal Ministry of Health and Population. (2012) [Nepal NTP General Manual 3rd edition](#). See p4, 9, 10, 31 for role of family members in TB patient support.
6. Nepal Ministry of Health and Population. (2009) Summary at: [Tuberculosis Case Management Guideline 1st edition](#) or for more information contact info@herd.org.np
7. Ministry of Health and Population, National Tuberculosis Programme, Nepal. (2011) [Annual Report 2010/2011](#). See p32 for COMDIS-HSD and HERD acknowledgement.

This case study is based on the REF2014 Impact Case Study: [Influencing TB control policy and practice in Nepal and Pakistan](#) (University of Leeds).

10/16



This project has been funded by UK aid from the UK government