

## Community-based care and treatment for multi-drug resistant tuberculosis patients in South Dagon, Myanmar

### *Evaluation findings and policy implications of a four-year ANCP project*

#### **Why was the project started?**

Myanmar is listed among the World Health Organisation's high TB burden countries. Yangon region has the highest tuberculosis (TB) case notification rate in Myanmar (203/100,000, bacteriologically confirmed), and South Dagon Township has the second highest TB case notification rate of Yangon's 45 townships (250/100,000). The 2013 national drug-resistance survey revealed that Yangon has several multi-drug resistant TB (MDR-TB) transmission "hotspots".

A 2014 situational analysis found the major challenges facing the South Dagon Township Health Department's MDR-TB program were a lack of human resources and capacity; there were insufficient 'Basic Health Staff' (BHS) to address the MDR-TB burden given competing health priorities. Based on the subsequent recommendations, Burnet commenced an ANCP project in 2014, with the aim of establishing an effective system for MDR-TB care at the community level in South Dagon Township, Yangon Region, Myanmar.

#### **How was the project implemented?**

The project was based on training community treatment supporters (CTSs) to task shift and decentralise MDR-TB care from the health facility level, shifting the burden from BHS. CTSs were trained by project staff to provide a range of prevention, treatment and care support including;

- i. providing the evening dose of TB medication, side effect management and referral
- ii. social support (nutrition, transport subsidies), emotional support (counselling) and health education (mass and individual);
- iii. household infection control assessments and contact tracing

Other activities included peer support groups, MDR-TB training for Township Health staff and provision of additional support for MDR-TB patients at risk of poor outcomes, including married women of reproductive age, clients with diabetes, and people living with HIV.

#### **What did the project achieve?**

##### *Goal and objectives*

The project met its goal to '*Improve TB-related health outcomes for MDR-TB patients and their families*', surpassing the targets of 80% patient treatment completion and <5% lost to follow up, achieving 99% patient treatment completion and 1% lost to follow up. This was achieved through the project objectives; 1) strengthening township, health and community systems, and 2) delivery of a comprehensive model of care. In relation to the objectives targets, 94% of MDR-TB patients attended their monthly appointment and reported treatment adherence (taking drugs daily) was ~100%. 100% of patients were satisfied with MDR-TB services.

##### *System strengthening*

- Successful utilization of volunteers from previous Burnet projects (MCH & male engagement), built and maintained a valuable community resource.

- Task-shifting MDR-TB care to a community cadre reportedly reduced government staff workload and increased productivity, enabling greater focus on other parts of the health system.
- Broader health reach beyond TB, e.g. 20 diabetic MDR-TB patients received glucose monitoring, 50 received a reproductive health consultation, resulting in contraception uptake by 7 women.
- Support for advanced in-service MDR-TB training for BHS resulted in delivery of higher quality, improved MDR-TB services.

### *A positive influence on patients and communities*

- Patients, family members, BHS and CTSs all reported that the comprehensive material and psychological support provided by the project was a major contributing factor to the high treatment completion and low lost to follow up rates. The project had a profound effect on the lives of patients and their families.
- Contact tracing resulted in 1377 household members being screened, 145 referred for testing, with 2 testing positive for TB.

*“When I got TB, I couldn’t move my lower body and I wanted to die. Due to the emotional, financial and nutritional support I received from the project, I am now alive”*

Ex-MDR-TB patient

### **How can the lessons learnt from the project inform strategies to improve community-based MDR-TB treatment and care?**

- A profound project finding was the devastation of treatment-related hearing loss (sustained in the first phase of treatment, before entering the project). In August 2018 the WHO released landmark changes to MDR-TB treatment guidelines, calling for drugs that cause hearing loss to be replaced by newer alternatives (i.e. bedaquiline). The project highlighted the need for the rapid introduction of new MDR-TB treatment regimens that do not cause hearing loss.
- Emotional support was valued by patients and their families just as much as material support. Provision of a comprehensive package of care can significantly contribute to improved patient outcomes. However, research is needed regarding the contribution of each intervention.
- The project enjoyed a high retention rate for CTSs, who reported being motivated not by money, but by feeling *“useful, valued and respected”* in their community. TB programs that rely on service delivery by community volunteers should make efforts to more deeply understand and address motivational factors.
- Peer support is a powerful tool to promote TB treatment adherence. TB projects focused on patient care should consider including a comprehensive peer support model, including the creation of more platforms for interaction and the creation of *“expert patients”* that can themselves provide adherence support and counselling.
- Mass health education interventions are popular with TB programs, though encounter challenges due to inadequate measurement of effectiveness. Health education interventions should be informed by evidence, address relevant knowledge gaps through appropriate channels, and favour actionable messages. Measurement of effectiveness should move past the output level.