Article Summary and Takeaways for Implementers
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**Introduction**
For fragile states, which are low-income states with cycles of violent conflict, weak governments and vulnerable populations, tuberculosis (TB) control can be extremely difficult. During violent conflicts, infectious diseases may spread due to malnutrition and crowding among displaced peoples. Historical evidence suggests that TB incidence and mortality increase during periods of conflict. Moreover, political and economic instability, migration, and the lack of state funds can lead to disruptions in drug supply, health care services, and treatment adherence, which pose significant challenges for the long and difficult treatment regimen required to cure TB.

This study compares and contrasts efforts to control TB in 4 different fragile states (Afghanistan, DR Congo, Haiti and Somalia) between 2002 and 2006. The authors explain the need for this type of study: “Until now, accounts of tuberculosis control programs and their functioning in fragile states have been mainly limited to individual country reports [13,15,18,22,24,25,28,41,45]. A lack of in-depth analyses of TB program structures and cross-country comparisons in fragile states in the published literature has been identified [13,18,26,28]. To address this gap and to share significant experiences in TB control in fragile states from several countries, this paper presents a comparative analysis of TB control programs in Afghanistan, Haiti, DR Congo and Somalia. Its aim is to share lessons learned on public health and TB control in fragile states” (Mauch et al. 120).

**Key Findings:**
- Case notifications and positive treatment outcomes have increased in all 4 countries since 2003, with treatment success rates between 81–90% (the WHO 2005 target was to successfully cure 85% of new cases) (Mauch et al. 118).
- Access to health care and TB case detection rates have remained insufficient in all 4 states, with case detection rates between 39–62% (below the WHO case detection target of 70%) (Mauch et al. 118).
- Management and organization: Afghanistan, Haiti and DR Congo have National Tuberculosis Programs (NTP) run by ministries of health; Somalia has no NTP and the WHO coordinated and conducted the TB control work in its 3 de-facto states. In all four countries, many NGOs provide health care services, particularly in DR Congo and Afghanistan; in Haiti and DR Congo, several NGOs provide technical support.
- Service Delivery: There is a deficit in health care staff in all 4 countries. Service delivery is contracted out to local and international NGOs.
- Donor and NGO coordination: All programs implement DOTS; in DR Congo and Afghanistan, NGOs signed a Memorandum of Understanding (MOU) with the ministry of health, and in Somalia NGOs signed an MOU with the WHO.
- Funding: At the time of the study, Afghanistan and DR Congo had steady TB funding from a variety of sources, Haiti had frequent changes in donor funding and Somalia had difficulty securing funding. In Afghanistan, funding initially flowed straight to NGOs but is now channelled through the government, which helps strengthen government capacity, leadership and legitimacy.
- Security and Logistics: Drug procurement and distribution depend on the security situation. In Afghanistan, days of peace were negotiated so that community health workers could provide services. Geography and extreme weather pose great challenges for drug distribution and
staffing, as does violence, theft and attacks on government staff and facilities - which also limited supervision and other programmatic support.

Analysis:

- Despite challenges of security, logistics, funding, human resources, and management, TB control in fragile states is possible; these 4 very different fragile states have all achieved good TB treatment outcomes, but face enormous challenges in improving access to care and therefore case detection.
- Each fragile state or conflict area deserves individual attention and will require a unique combination of solutions, but there are lessons to be learned from cross-country analysis, such as the need for strong national program leadership, a long-term commitment by donors and partnering organizations (providing technical support or service delivery), and good coordination between groups.
- NTP leadership must be supported by national and international organizations; Haiti’s donor relations and leadership kept changing, and Somalia had no national leadership, which created problems.
- General health system strengthening is necessary to improve case detection rates and service delivery in all 4 states

Takeaways:

- TB control in fragile states is possible.
- “National TB program leadership, partner coordination, consistent technical and financial assistance and the use of the DOTS approach as a common framework are all crucial for TB control programs to function in fragile states” (Mauch et al. 125).
- WHO and UNHCR recommend that TB control should be addressed once the emergency phase of a conflict is over, and once shelter, food, water, sanitation, and basic health services are available to the population.
- Adequate access to health care is a major challenge in fragile states, and strengthening the health system to improve access is a priority.
- Patience, problem solving and resourcefulness were essential to improve TB control efforts in these four fragile states.
- Changes in donor commitments and policy or other disruptions to NTPs must be minimized.
- Afghanistan’s experience suggests that it is possible to use disease control to strengthen government

Enrich the GHDonline Knowledge Base: Start a discussion with

- Your experience working in fragile states
- Other challenges faced by fragile states in TB control
- Updated information about what is happening in these countries

Recommendations: You may also be interested in the following resources