Tuberculosis in BRICS: challenges and opportunities for leadership within the post-2015 agenda

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Tuberculosis is a disease of poverty that claims the lives of over a million people annually.[1] Globally, tuberculosis is concentrated in low- to middle-income countries. The five countries – Brazil, the Russian Federation, India, China and South Africa – that make up the BRICS group account for 46% of all incident cases of tuberculosis and 40% of all tuberculosis-related mortality. China and India alone account for almost 40% of the estimated global burden of tuberculosis and a similar proportion of all cases notified to the World Health Organization (WHO). South Africa accounts for 30% of the estimated global number of incident cases of tuberculosis–human immunodeficiency virus (HIV) coinfection. In terms of multidrug-resistant tuberculosis (MDR-TB), China, India and the Russian Federation together account for more than half – 56% – of the estimated global burden. Brazil alone accounts for about a third of the western hemisphere's estimated burdens of tuberculosis and MDR-TB.[1]

Global efforts to control tuberculosis have had considerable success. These efforts have resulted in substantial progress towards halving tuberculosis prevalence and mortality between 1990 and 2015 (current targets of the Stop TB Partnership) and halting and reversing the incidence of tuberculosis by 2015 (Millennium Development Goal 6c). Despite this progress, about three million people developing tuberculosis are missed by national notification systems each year, only a small fraction of MDR-TB cases are being treated and the poor and vulnerable continue to suffer disproportionally.[1] It is time to look at the enormous challenges that will have to be faced in the post-2015 agenda and the expanded leadership role that BRICS can – and should – play in the fight against tuberculosis.

The five BRICS countries were grouped together because they were all fast-growing economies but they also have another similarity: they each harbour more tuberculosis cases than any other country or territory in their respective WHO region. In terms of tuberculosis, each also has different weaknesses and challenges to confront. South Africa has a staggering burden of tuberculosis–HIV coinfection. Brazil and the Russian Federation are trying to eradicate intense foci of tuberculosis among some of their most vulnerable subgroups including homeless people, prisoners, people who use drugs and indigenous populations. China is now faced with the challenge of urgently scaling up access to treatment for MDR-TB. India has more missed cases than any other country and it is difficult to assess the quality of tuberculosis care provided in the country's very active and diverse private sector. Despite these multiple challenges, the five BRICS countries are often considered to be regional and global leaders in the fight against tuberculosis. They provide models of care and are working together to strengthen efforts that may well be instrumental in setting and achieving future global tuberculosis targets. Several examples show how these countries have addressed local challenges on a large scale, delivered important evidence for improving tuberculosis prevention and care and provided critical political support for new tuberculosis-related initiatives and policy advances.

In China – after years of poor tuberculosis notification – the government scaled up access to directly observed treatment and now sees a higher proportion of the estimated notifications (89%) than any other high-burden country. The engagement of hospitals in tuberculosis care has also produced major gains. Following problems with the surveillance of severe acute respiratory syndrome in 2003, the surveillance of all communicable diseases was improved and notification of tuberculosis cases became mandatory. Surveillance of tuberculosis is now based on a nationwide network of more than 3000 facilities that are linked in real time. This network has increased the annual number of notifications and improved the quality of the surveillance data.[2]

India has also recently developed a web-based national notification, banned the use of inaccurate serological tests and made tuberculosis notification mandatory.[3]

Although Brazil has a thriving private health-care sector, all of the country's tuberculosis patients receive treatment free of charge, with publicly-provided drugs. This initiative should slow the development of drug resistance because it should reduce the use of substandard drugs and the risk of incomplete treatment.

Improving tuberculosis care will require more research and the large-scale assessment of novel interventions. Several of the BRICS countries have been involved in trials of diagnostic tests, vaccines and new drugs. For example, South Africa has played a leading role in the introduction of Xpert MTB/RIF – a rapid molecular test. It was the first country to scale up the use of this test for initial diagnosis. In 2012, this scale-up, which had strong ministerial support,

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led to more people being diagnosed with MDR-TB than the number of cases that WHO estimated would occur in the country. Brazil and India have also taken leading roles in the large-scale programmatic implementation of new rapid diagnostic tests.[4] In addition, China and India are developing "fast-follower" diagnostic technologies to drive down costs and improve access.[1]

Improving vulnerable populations' access to quality tuberculosis care is vital in the world's attempts to reach the three million missing cases of tuberculosis each year. Brazil already has a strong political commitment to reduce social inequalities in health by implementing large-scale social protection schemes. Brazil's national tuberculosis programme works to enhance community participation, in the Stop TB Partnership.[5]

By working across the various ministries that handle health and the penal sector – to introduce tuberculosis screening and improve the general conditions, infection control and tuberculosis treatment in prisons – the Russian Federation reduced tuberculosis prevalence in its prisons.[6] Over the last decade, the Russian Federation has also achieved major reductions in tuberculosis incidence, prevalence and mortality.[1]

As the result of India's recent implementation of a plan to expand drug susceptibility testing, the annual number of people initiating treatment for MDR-TB in 2012 was fourfold higher than for 2011.[3]

Since the introduction of WHO's DOTS/Stop TB Strategy, political commitment has formed the bedrock of all successful programmes of tuberculosis control – including those in BRICS. The Ministers of Health of Lesotho, South Africa and Swaziland led the development of the first Heads of State declaration on tuberculosis; the South African Development Community's statement on tuberculosis in the mining sector. This declaration resulted in major progress in the planning, financing and implementation of multisectoral interventions against mining-associated tuberculosis in southern Africa. All five BRICS countries are providing large levels of domestic funding for tuberculosis care. The Russian Federation, for example, invests the equivalent of more than a billion United States dollars per year in such control. India produces large amounts of anti-tuberculosis medications that are either used domestically or exported. India's pharmaceutical industry could play a leading role in lowering the cost of treatment of MDR-TB. China, India, the Russian Federation and, particularly, Brazil and South Africa played major roles in shaping WHO's new post-2015 TB strategy that was initially approved by WHO's Executive Board in early 2014.

It is clear that, in the control of both tuberculosis and HIV, more opportunities exist for enhanced collaboration within BRICS. Senior officials from BRICS gathered in Paris in October 2013 to discuss tuberculosis and HIV. These officials agreed to work towards decreasing the price of drugs and diagnostics and to support research on several key topics: improving service delivery for tuberculosis and HIV, developing and improving electronic information systems and improving the health of individuals who migrate within or between countries. The officials also agreed to support greater collaboration – between BRICS – on economic analyses and modelling, to optimize the allocation of health resources and to maximize efficiency and effectiveness and promote the sustainability of investments. These discussions on tuberculosis and HIV were reported to BRICS' ministers of health when they met in Cape Town in November 2013. The Ministers agreed that tuberculosis and HIV should be prioritized as areas of work. The senior officials who met in Paris have now been asked to develop an appropriate roadmap of activities to be undertaken and to report progress to the next meeting of BRICS' ministers of health.

BRICS have made progress in tuberculosis control and treatment thanks to high levels of political commitment, the availability of domestic resources, the use of each country's capacities and strengths and good levels of collaboration between all relevant ministries and other partners. Since these countries bear much of the global burden posed by tuberculosis, it is not surprising that they have taken leading roles in the fight against tuberculosis. To accelerate the progress, each of the BRICS countries needs to continue to innovate, to provide data on the scaling up of new approaches, and to ensure that future global tuberculosis strategies and plans promote bold efforts and set ambitious – but achievable – post-2015 targets. ■

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