**Working with national tuberculosis programmes to End TB:**

**The Union’s 7th edition of the Orange Guide**

**“Editorial”**

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Although effective tuberculosis treatment has been available for several decades, tuberculosis remains a major public health challenge with an estimated 10 million people developing the disease and 1.5 million dying from it in 2018.1 A century ago, in 1920, representatives of 31 countries met and pledged to work together to fight tuberculosis and the International Union Against Tuberculosis, later the International Union Against Tuberculosis and Lung Disease (The Union) was founded to coordinate their efforts.2 Since then The Union has been working to support national tuberculosis programmes (NTPs) in delivering tuberculosis care and prevention services. One of the ways this support is given is sharing the latest knowledge on tuberculosis and lung health through the Union journals, the International Journal of Tuberculosis and Lung Health and Public Health Action, and through technical publications.3 In 1986, the first edition of the Union’s ‘Tuberculosis Guide for High-Prevalence Countries’ was released. This publication soon became the blueprint for national tuberculosis guidelines around the world. It described the ground-breaking approach to tuberculosis control consisting of five basic components developed by Karel Styblo and colleagues in collaboration with NTPs in Tanzania, and later in Malawi, Mozambique and Nicaragua.4 In the 1990s, this approach was adopted by the World Health Organization and expanded internationally under the brand name Directly Observed Treatment, Short-Course or “DOTS”. 5, 6 This process ended the decades-long neglect of the global epidemic of tuberculosis and culminated in the first ever United Nations High Level Meeting on tuberculosis in 2018. 7

The Union has regularly updated this publication, also called the Orange Guide because of its recognisable orange cover. Over the years more than 50,000 copies have been printed and the guide has been translated into several languages. The 7th edition was developed and launched during the 50th Union World Conference on Lung Health in 2019.8

Since the previous edition in 2010 there have been considerable developments in many areas of tuberculosis management that include new diagnostic tools, new medicines and treatment regimens, particularly for drug-resistant tuberculosis and for tuberculosis prevention, as well as approaches to providing care and support to people with tuberculosis during and after treatment. Despite the progress, significant gaps remain, including inadequate linkages between tuberculosis programming and the current global drive towards universal health coverage.9 These gaps include the challenge of missing persons with tuberculosis. Every year at least three million people with tuberculosis are either not diagnosed and/or reported. In 2018, only one in three people with multidrug/rifampicin-resistant tuberculosis was enrolled in treatment.1 In many high burden settings there are also shortfalls in the quality of care provided to people with tuberculosis. For example, in India it was found out that only 45% of an estimated 2,7 million prevalent tuberculosis cases completed their treatment and that this proportion was considerably lower (11%) among people with multidrug-resistant tuberculosis.10 Despite tuberculosis preventive treatment having been recommended in high risk groups for several decades, only a quarter of eligible children less than 5 years of age receive it.1 A recent care cascade analysis revealed that less than 20% of those eligible for this preventive treatment were screened, started and completed treatment.11

This guide and the supplementary materials portray broad experiences gained by The Union through many years of collaboration with NTPs to address these key gaps. One such collaborative effort is TBData4Action, an approach to introduce data-driven management of tuberculosis programmes. It resulted from a partnership between the NTP in Zimbabwe and The Union.12 In this approach, staff at health facilities and tuberculosis coordinators and other district supervisors use their quarterly data to identify facilities with indicator values that are outside the expected range, for example, facilities that find less presumptive cases of tuberculosis or diagnose fewer than expected people with tuberculosis compared with the district average. With this information about ‘cold spots’ coordinators can focus their attention to them and together with local staff take specific action to improve case finding, and then in the following quarter, monitor progress based on the indicator values. Supported by a set of 18 indicators that cover all main aspects of tuberculosis management, TBData4Action can also be applied to boost tuberculosis treatment outcomes, including drug-resistant tuberculosis, patient support and management of drugs and consumables required in a tuberculosis programme. Training facility and district teams to actively use their own tuberculosis data enables them to find local solutions to local problems and augments priority setting and ownership. Data use should be integrated into support supervision and performance review meetings transforming them to data-driven and dynamic activities that aid change based on real data and continuous attempts to strengthen provision of detection and treatment to people with tuberculosis and thus enhance programme performance.

We summarise lessons learned with the NTP in Uganda and demonstrate how detection of tuberculosis among children can be significantly increased through decentralisation of tuberculosis services, intensifying contact investigations and engaging communities.13 Based on the experiences with the NTPs in Benin, Burkina Faso, Cameroon and the Central African Republic we show that systematic screening of child contacts is feasible and acceptable to families and document a high uptake and completion of tuberculosis preventive therapy among child contacts.14

We believe that many of these success stories can be adapted for other country contexts. For example, in Kenya over 350 tuberculosis coordinators have been trained in TBData4Action and the NTP is now further refining the approach to suit the circumstances and challenges faced in Kenya. The lessons learned in child tuberculosis in Uganda are amplified through the efforts of The Union’s virtual Sub-Saharan Africa Regional Child and Adolescent Tuberculosis Centre for Excellence and nine founder member countries sharing best practices to improve the quality of tuberculosis care and prevention in children and adolescents.15

As the earlier editions, the guide includes examples of recording and reporting forms. In many high tuberculosis burden settings, service provision has been decentralised though reporting frequently starts at basic management units (usually districts). New forms have therefore been proposed: facility tuberculosis register and quarterly facility report. Using the above-mentioned tools, programmes will acquire insight into gaps in quality of services at the level where people with tuberculosis are first attended to and can then reinforce both clinical and programmatic services from bottom-up. The guide also strongly encourages use of a presumptive tuberculosis register that can play an essential role in monitoring the first crucial steps of the care cascade (sputum specimens collected, tested and results reported and acted upon) and decreasing the number of people with tuberculosis who previously have been missed.

The 7th edition of the guide includes updates on rapid molecular testing, person-centred care and support, information to be provided to people with tuberculosis and their families, tuberculosis in children and adolescents, tuberculosis prevention and tuberculosis and co-morbidities.

The Orange Guide is The Union’s most popular publication and we hope that this new concise, though comprehensive, ‘how-to’ manual will be as valued as the previous editions. We recommend that it should be adapted by NTPs so that it can become an essential tool to a wide array of health professionals engaged in the planning, delivery and monitoring of tuberculosis services. We particularly hope that it will help persons working in demanding environments, such as urban slums, informal settlements, remote rural areas and among refugees and migrants. For ease of reference, the guide employs a question-answer style and uses everyday language. It is now available in English, French and Spanish.16, 17

The current Covid-19 pandemic has severe impact on societies and health systems around the world. In high tuberculosis burden settings case detection has reduced, diagnosis delayed, follow-up and support of people on tuberculosis treatment decreased increasing the risk of development of drug resistance. Deaths from tuberculosis are predicted to rise considerably because of Covid-19.18 NTPs need to contribute to the Covid-19 response but also safeguard the most important tuberculosis services. The Orange Guide is very timely as it assists NTPs and partners in preserving these essential services and re-setting priorities in view of resources being drawn to the pandemic response.

We trust that with other recent Union publications, Management of Diabetes-Tuberculosis: a Guide to Essential Practice, Field Guide for Management of Drug-Resistant Tuberculosis and COVID-19 and TB: Frequently Asked Questions, this guide will assist front line health professionals to have an all-inclusive overview, identify the gaps in the tuberculosis services, take decisive action to close these gaps and offer high quality person-centred care for people with and at risk of tuberculosis.19, 20, 21

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