



## **21<sup>st</sup> Annual meeting of the Stop TB Child and Adolescent TB Working Group, Monday 11 November 2024, Bali, Indonesia**

The **21st annual meeting of the working group** took place on Monday 11 November 2024 in Bali, Indonesia just prior to the 55<sup>th</sup> Union World Lung Conference. The meeting was attended by more than 150 participants representing multiple stakeholders. The meeting was divided into 4 sessions: (Session 1) Opening and update from the working group chairs and secretariat; (Sessions 2, 3) country, partner and community experiences with implementing the key actions of the 2023 Roadmap towards ending TB in children and adolescents and WHO policy recommendations that apply to children and adolescents as well as to pregnant and post-partum women; and (Session 4) Prioritizing research principles and needs to end TB in children and adolescents.

**Farai Mavhunga**, Unit head People-Centred Services, Communities and Determinants (PCD) at the WHO Global Tuberculosis Programme (GTB) opened the meeting on behalf of Tereza Kasaeva, Director GTB warmly thanking USAID and UNOPS for the continuous financial support to the working group and for making it possible to convene another (hybrid) annual meeting. He also referred to the third edition of the Roadmap towards ending TB in children and adolescents which was launched during the annual meeting one year ago in Paris and includes key actions towards ending TB in children, adolescents, pregnant and post-partum women in line with the targets of the political declaration of the UN High Level Meeting on the Fight Against Tuberculosis. He warmly welcomed everyone and extended a special welcome to **Ms Naila Hanum Syafira** and her mother **Mrs Rina Hashniyati** from Padang, West Sumatra, Indonesia who shared their emotional journey with MDR-TB. Naila shared that she had lost 7 kg in only 3 months and that she did not know much about TB when she was diagnosed, but that she was glad she did not have cancer. Still on treatment, it has been overwhelming to take multiple pills on a daily basis for 17 months (she has one month to go to complete treatment) but she expressed that she had grown stronger and more resilient during the journey knowing that each pill would take her a step forward. She also referred to the importance of nutrition. Weight gain is a sign of recovery. “Each meal not only nourished my body but also my spirit”. **Moorine Sekadde**, paediatrician, Chair of the working group and the Uganda national focal person for TB in children and adolescents, and **Chishala Chabala**, Vice—Chair of the working group and paediatrician from Zambia, warmly thanked Naila and her mum as well as her doctor, working group member Dr Finny Fitry Yani. They then provided an update on activities of the working group since its last annual meeting in November 2023. On behalf of WHO, **Sabine Verkuijl** presented an analysis of the data related to children and adolescents from the 2024 Global TB Report. She also provided an update on recent policy developments related to TB preventive treatment, diagnosis of TB and management of drug-resistant TB that apply to children, adolescents, and to pregnant and breastfeeding women. At the end of the first session, **Marian Loveday** from the South African Medical Research Council, presented an evaluation of MDR-TB mother/infant pairs in South Africa with several case studies highlighting the most likely route of *Mtb* transmission: in utero

transplacental infection, intra-partum aspiration and postpartum inhalation. Her work documents the absence of routine screening for TB in the ante- and post-partum periods, poor integration of TB into primary maternal and child health services, lack of infant TPT and suboptimal maternal TB and anti-retroviral treatment adherence. She notes the need for TB services to be fully integrated into maternal and child health services and for pregnant/post-partum women and their vulnerable infants do not spend time in overcrowded and poorly ventilated clinic waiting rooms. Health care workers in delivery wards must be trained to routinely screen infants for TB, to provide TPT or BCG to infants who have a mother with TB, and to encourage maternal treatment adherence. The availability of child-friendly dispersible levofloxacin should facilitate infant administration and should therefore be widely available.

During the sessions 2 and 3 on experiences with the implementation of the key actions included in the 2023 Roadmap as well as recent WHO policy recommendations that apply to children, adolescents and pregnant/postpartum women, **Mai Thu Hien**, FHI360 and Chief of Party for the USAID Support to End TB project in Vietnam presented on the intensified efforts to find children with TB in Vietnam. Using a combination of three active and intensified case finding approaches (in the household, in the community and in health facilities) the project, which started in 2020, has detected a substantial number of additional children with TB. The project included capacity building among health care workers as well as awareness raising in communities. Based on the project results, the national guidelines, standard operating procedures and the national TB surveillance system are being updated to facilitate national roll out of the successful approaches. **Gordon Pukai**, paediatrician, and **Pauline Masta**, obstetrician/gynaecologist, then shared lessons learned from integrating TB care with maternal and child health in Papua New Guinea (PNG). In PNG, TB is the second most common cause of maternal deaths. With support from TBREACH (Wave 10), PNG implemented active TB screening and linkage to care for peri-partum women, contact (family) screening, staff screening and advocacy for use of contraception and appropriate timing of next pregnancy for women with TB. These efforts have tripled case finding. Awareness raising in the community and education of health care workers in the TB programme as well as in family planning are essential to the success of these activities. **Handaa Enkh-Amgalan**, book author, public speaker, and advocate for ending TB and its attached stigma and a current WHO Civil Society Task Force member, read a poem and pointed out that TB services and innovations are still not accessible to all and need to be brought closer to communities among others by use of mobile Chest X-Rays and the integration of TB services into health checks and Mother and Child Health services. She referred to the persistent socio-economic inequalities, the cost beyond direct medical costs and the need for social protection. She called on working group members to build on each other's skills and experiences to ensure that all children and adolescents and their families can benefit from innovations. **Gloriah Kerubo Moses**, community representative on the core team and a Citizen Science Program Officer under the Watch What Matters Strategic Pillar at ITPC Global presented on community-driven actions to address the needs of children and adolescents, including on a community-led monitoring (CLM) framework piloted by the Global Coalition for TB Advocates, CHEETA and ITPC. CLM is a process where communities take the lead to routinely monitor issues that matter to them. Communities then work alongside policymakers to co- create solutions to the problems they have identified. Gloriah presented a couple of success stories. In South Africa for example, after using CLM data to alleviate stockouts of TB medicines, the treatment success rate at CLM sites increased from 88% in 2022 to 91% in 2023. In Malawi, CLM advocacy secured a commitment from the Global Fund to procure 50 new GeneXpert machines. As a result, 39% of TB tests at CLM sites in 2023 were GeneXpert tests, up from 18% in 2022. As a result, people diagnosed with TB and enrolled onto treatment nearly

tripled, from 320 in 2022 to 907 in 2023. Currently, the CLM framework is piloted in South Africa and in India to improve TB care and the response for children and adolescents. The CLM framework is empowering communities and encourages caregiver and community participation. When efforts are led by communities, there is ownership and interventions become appropriate and responsive. **Muhammad Bashir Abdullahi**, medical doctor from Nigeria highlighted the experiences of the MSF TACTiC (Test, Avoid and Cure TB in Children) project which includes field implementation of the 2022 WHO policy recommendations, operational research, and advocacy efforts. He shared MSF's experiences from Niger and Nigeria with the use of the treatment decision algorithms (TDAs) from the WHO operational handbook (module 5) in ambulatory and in-patient feeding centres and explained some of the challenges with the scoring and timing of scoring in the TDAs in children with malnutrition. He also underscored the importance of nutritional support for children and adolescents with TB or at risk of TB. **Cheelo Mwiinga**, a paediatrician and national focal person for the management of TB in children and adolescents, presented Zambia's experiences with the implementation of the 4-month regimen for non-severe TB in children and adolescents. Zambia piloted the shorter regimen 2RHZE /2RH in two provinces, updated national guidelines and conducted training. In Q1 and Q2, 87% of children with non-severe TB between the ages of 3 months and 14 years were started on the 4-month regimen. Dr Mwiinga highlighted the importance of building community awareness, continuous onsite training on TB screening, diagnosis and assessment of disease severity, and integration of the shorter regimen in the electronic medical records and other existing tools prior to implementation to avoid parallel reporting. **Urhioko Ochuko**, a public health physician from Nigeria, shared Nigeria's experiences with implementing stool testing for the diagnosis of TB in children. The use of stool testing has substantially increased the number of TB notifications in children, including in malnourished infants. He concluded that the utilization of GeneXpert for stool testing has addressed critical gaps in diagnosis of TB in children. There have been challenges with scaling up its implementation to reach more rural and underserved communities and some parents/caregivers as well as laboratory personnel refused to conduct stool testing. Sensitization and training of Health Care Workers, provision of consumables and supervision play a pivotal role in ensuring optimal benefits from the intervention. And continued support and collaboration with all stakeholders are vital to maintain the momentum and for a successful expansion to rural and underserved communities. **Rina Triasih**, researcher and lecturer in Department of Child Health, Dr. Sardjito Hospital/Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta presented the key findings of a retrospective study to evaluate TDAs in Indonesia. The objectives of the study were to evaluate the 2022 TDAs and the Indonesia algorithm (2016) and to compare the number and proportion of people who received a TB diagnosis based on the use of the 2022 WHO TDAs versus the 2016 Indonesia algorithm versus doctor's decisions. Out of 523 children with a medium age of 4.1 years, and of which 13 were bacteriologically confirmed, attending doctors picked up 371 children with TB (70.9%), an expert panel using the WHO TDAs picked up 295 children (56.4%) and an expert panel using the 2016 Indonesia algorithm picked up 246 (47%) children. Dr Triasih concluded that there may have been overdiagnosis by the attending doctors compared to the doctors in the expert panel, among others, due to the lack of a gold/reference standard and because attending doctors may have had some additional information to which the panel members may not have had access. The study results will inform the refinement of the Indonesian algorithm. **Sangeeta Sharma**, consultant in paediatrics and chief-in-charge of the India National Centre of Excellence for Pediatric TB and DR-TB presented emerging results from the Pediatric Newer Drugs (PND) looking at the safety and Tolerability of Bedaquiline and Delamanid along with Optimized Background regimen for treatment of

Paediatric DRTB (RR/ MDR/ Pre-XDR/XDR TB) in children aged 6-18 years in India. Emerging results show the acceptability of all oral regimens. Challenges include treatment monitoring and intermittent stock out of child-friendly formulations. Finally, **Marieke Van Der Zalm**, Associate Professor and paediatrician working at the Desmond Tutu TB centre, Stellenbosch University, South Africa, presented the outcome of a systematic review of TB-associated respiratory conditions in children and adolescents. The review included 2 studies from The Gambia and 2 studies from South Africa. The studies show that across age groups, up to 50% of children have chronic respiratory symptoms which have a negative impact on their quality of life although some improvement is possible and seen over time. The data shows that especially adolescents need to be screened for post-TB lung disease and that more data are needed on younger children (especially <5), especially longitudinal data for both children and adolescents in different high TB-burden settings. She launched a call for data to build an IPD on TB-associated respiratory disability. **Lisa Maleche-Obimbo**, Professor of Paediatrics and a Paediatric Pulmonologist at the University of Nairobi Department of Paediatrics in Kenya, added experiences from Kenya where hospitalized children are 7 times more likely to have sequelae. Especially older children and children living with HIV tend to be at a higher risk of respiratory sequelae. She also presented examinations available to assess sequelae and how children with damaged lungs can be managed and supported.

During session 4 on prioritizing research needs to end TB in children and adolescents, **Moorine Sekadde**, Chair of the working group, and **Silvia Chiang**, a U.S.-based pediatric infectious disease physician at Brown University and its affiliated pediatric hospital, Hasbro Children's, presented on the process to reach consensus on research principles and priorities and summarized the results of the first round of the ongoing Delphi process. Such consensus is aimed to inform the best use of future research resources. Together with members of the core writing team and focused on research principles and priorities that did not "pass" or "barely passed" according to predefined criteria, they facilitated a brainstorming session to try to refine and improve the wording of those principles and research priorities. To conclude the day, **James Seddon**, Professor of Global Child Health at Imperial College London, Professor at Stellenbosch University, and Consultant in Paediatric Infectious Diseases at St. Mary's Hospital in London, presented a selection of 21 papers published since November 2023 (out of a total number of 1287 papers found with the search terms "child" and "tuberculosis"). The number of publications is ever increasing, and many are of a high quality. Since the working group last met, final results from large, well-funded studies including RaPaed, CaP-TB, and TB-Speed have been published. Lots of other studies have also been published with a very good geographical representation. The annual meeting was closed by the Chair and the secretariat managed at the WHO Global Tuberculosis Programme.