

TB Infection Control (TB-IC)

TB CAP has taken the initiative to scale-up TB Infection Control with a focus on capacity building at both global and country levels.

TB-IC is a combination of measures aimed at minimizing the risk of TB transmission within populations. It is a sub-component of the WHO's updated "Stop TB Strategy" and is one element of the WHO's 12 collaborative activities for TB/HIV. It is also part of the WHO's "Three I's for HIV/TB" that also includes Isoniazid Preventive Therapy (IPT) and Intensified Case Finding (ICF). TB-IC both requires and complements the implementation of core activities in TB, HIV and health systems. Thus, it is essential for countries to include TB-IC in their national infection control policies as part of health system strengthening. Maximising synergies

between infection prevention and control programmes and programmes on TB and HIV is also crucial.

The WHO is releasing a policy on "TB Infection Control in health care facilities, congregate settings and households". This policy complements general infection control efforts, particularly, efforts targeting other airborne infections (i.e. Standard Precautions and Airborne Precautions).

Tuberculosis has been around since the beginning of mankind due to airborne transmission of droplet nuclei with TB bacteria. The expansion of DOTS and effective first line TB treatment regimens appears to have decreased national and international attention for infection control measures. Presently, TB-IC has climbed to a higher position on the tuberculosis control agenda, in particular in programmatic management of drug-resistant tuberculosis and HIV. The need to scale up TB-IC is more urgent in countries with a high prevalence of MDR-TB and HIV.

TB CAP identified inadequate awareness concerning TB-IC among authorities, program managers and health workers and responded by organizing international training courses to build capacity.

This TB CAP Focus highlights the projects, ongoing efforts and upcoming initiatives that will support countries in scaling-up TB-IC. As always, TB CAP aims to develop products with a generic character, so countries can easily adopt and adapt them to their local needs.



Left photo: Nurses in health care facilities in Russia demonstrate respirator use for infection control. Right photo: A demonstration of ultraviolet germicidal irradiation (UVGI) fixtures for air sterilisation.



WHO Policy on TB Infection Control in health care facilities, congregate settings and households

Organizational Measures

National and Sub-national Level Activities

These activities provide the managerial framework for implementing TB Infection Control in health care facilities, congregate settings, and households.

1. Identify and strengthen coordinating bodies, and develop a comprehensive human resources plan for planning and implementation at all levels;
2. Design, construct, renovate and use health facilities;
3. Conduct surveillance and assessment at all levels of the health system;
4. Address advocacy communication and social mobilization (including engaging civil society);
5. Conduct monitoring and evaluation; and,
6. Enable and conduct operational research.

Facility Level Activities

Facility level managerial activities (managerial, administrative, environmental and personal protective equipment) constitute the framework for setting up and implementing the other controls at facility level. Managerial activities at this level should ensure political commitment and leadership.

7. a) Identify and strengthen local coordinating bodies, and develop a facility plan (including human resources and policies and procedures to ensure proper implementation of the controls listed below) for implementation;
- b) Rethink the use of available spaces and consider renovation and/or construction to optimise implementation of controls;
- c) Conduct on-site surveillance and assessment of facility;
- d) Address ACSM (for health workers, patients and visitors);
- e) Conduct monitoring & evaluation; and,
- f) Participate in research efforts.

Administrative controls

8. Promptly identify potentially infectious cases (triage), separate them, control the spread of pathogens (cough etiquette) and minimize time in health care facilities.
9. Provide a package of prevention and care for health workers, including HIV prevention, ART, and isoniazid preventive therapy for HIV-positive health workers.

Environmental controls

10. Ventilation systems
11. Ultraviolet germicidal irradiation (UVGI) fixtures

Personal protective equipment

12. Particulate respirators



Capacity building

TB CAP organized a series of international TB-IC training and workshops with the objectives of:

1. Strengthening the capacity of national programs in the implementation of adequate TB-IC;
2. Providing the necessary knowledge and basic skills to conduct TB-IC assessment at facility level and TB-IC situation analysis at program level; and,
3. Facilitating the development of the national TB-IC strategic plans.

Trainees

Participants from 40 countries (from Africa, Eastern Europe, and Central and East Asia), participated in five international TB-IC trainings and workshops organized by TB CAP. Profiles of the participants ranged from policy makers, national program managers and health care facility managers.

A trainee demonstrates the effectiveness of a surgical mask in minimizing spread of her forced expiration (such as in coughing or sneezing) in Botswana; she cannot possibly blow out the candle.



Currently, TB CAP is analyzing the progress made on the training and workshop objectives. TB CAP, through its implementing partners, is also moving to the next phase with the organization of in-country training of trainers (TOT) workshops cascading TB-IC to the facility level. Afghanistan, Ethiopia, Ghana, Uganda, several provinces of the Russian Federation and Zambia have recently entered this phase.

TB-IC Consultants

TB CAP developed additional initiatives to close the technical assistance gap between consultants with general and specialized expertise and experience by:

- Organizing trainings for 46 consultants;
- Providing scholarships for trained consultants for advanced training in building design and engineering approaches at Harvard University; and,
- Mentoring field visits for recently trained consultants.

While continuing its efforts to build capacity in technical assistance, TB CAP recognizes the need to define and agree with key implementing partners on the competencies of TB-IC consultants, to clarify the scope of work for generalists and specialists and to create a common understanding for inclusion of consultants under TB TEAM. Countries should be able to select trained consultants who can meet their needs for technical assistance.

TB TEAM

Created by the Stop TB Partners in 2007, TB TEAM (the TB TEchnical Assistance Mechanism) helps all stakeholders that implement TB control activities (e.g. NTP, NGOs, CBOs, FBOs,



patients groups) gain access to a network of technical partners and well-coordinated technical assistance (TA) by facilitating information-sharing among TA providers and recipients, filling TA funding gaps and encouraging TA planning through annual planning meetings. TB TEAM offers a platform of tools to make it easier for partners to deliver and receive quality assistance, including tools for tracking missions and training opportunities around the world, a roster of experts who are available to assist, and a directory of technical partners in every country around the world. Countries may apply for TA through standard WHO channels, by submitting requests to country offices, or through TB TEAM focal points.

PMU Focal point

TB CAP's Program Management Unit (PMU) employs a full-time technical officer, Dr. Max Meis, to support countries in scaling-up TB-IC (e.g. review of national TB-IC guidelines, review of country TB-IC implementation plans, facilitation of country TOT workshops, follow-up with field visits and facility assessments). The TB-IC technical officer is working together in PMU with two other technical officers responsible for programmatic management of MDR-TB and TB/HIV collaborative activities. PMU will be supporting TB CAP countries with sharing best practices and distribution of

sample country TB-IC implementation plan, guidelines and toolkits. Professionals can also become members of the TB-IC community and visit the GHDOnline Web site for practical information and expert advice.



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Online Collaboration to Improve TB Infection Control: An Invitation to Join GHDOnline

TB Infection Control is very challenging to implement in resource-constrained settings where professionals often work in isolation with little access to readily available practical information or expert advice. Guided by expert moderators Drs. Nardell, Jensen, and Volchenkov, hundreds of practitioners – from researchers to facility administrators and architects representing a variety of organizations – have created a vibrant collaboration space on GHDOnline: the TB-IC Community (www.ghdonline.org/ic). Professionals are invited to join (it's easy and free!) to engage in problem-solving, address challenges to control the transmission of TB, and share proven practices. Among other tools, members can seamlessly contribute to discussions in the community via e-mail. GHDOnline: www.GHDOnline.org, is the "communities of practice" Web site of the Global Health Delivery Project.





Guidelines for control of tuberculosis in prisons

TB CAP, in collaboration with the International Committee of the Red Cross, have published the third edition of guidelines for the control of tuberculosis in prisons. This edition dedicates an entire chapter on TB-IC measures recognizing the opportunity to scale-up TB Infection Control in congregate settings.

Scale-up Infection control

The following activities are essential for countries to scale up TB Infection Control:

- Identify a focal point for TB-IC; develop or contribute to an IC coordinating body.
- Review or develop national TB-IC guidelines guided by the 2009 WHO TB-IC policy.
- Develop a country TB-IC implementation plan addressing appropriate managerial, administrative, environmental and personal respiratory protection controls.
- Involve collaborative Ministries, partners and programs (e.g. Ministry of Justice, Ministry of Home Affairs, NGOs, HIV/AIDS Control and Infection Prevention & Control (IPC) program management).
- Integrate TB-IC implementation activities in health service delivery plans at all levels (e.g. provincial, regional, district, facility and community levels).
- Allocate activity budgets making optimal use of available TB specific or general external budget support and the national health budget.
- Integrate TB-IC in the existing TB and IPC training programs for various target groups (e.g. managers, trainers, architects, engineers and health workers).
- Address advocacy, communication and social mobilization.
- Promote operational research initiatives.
- Ensure surveillance for TB among health workers.
- Monitor and evaluate the implementation whilst strengthening the present monitoring and surveillance systems.

An Overview of TB Infection control Activities:

- International trainings and workshops
- Training TB-IC consultants
- Scholarships for TB-IC consultants
- Mentored field visits for TB-IC consultants
- Focal point in PMU
- National TOT workshops

Future products

TB CAP endeavours to develop three more products next year:

- Generic country TB-IC implementation framework
- Generic TB-IC guidelines for community health workers
- Regional TB-IC training capacity in the African and Asian regions

Case description

Manafwa district, situated in Eastern Uganda, has a total population of 317,000 that is served by 165 health workers working in 22 health facilities. In 2008/9 the national TB and Leprosy Program registered 125 TB cases in the district. With support from the Union/TB CAP, the Manafwa district first developed an assessment tool and thereafter conducted a TB-IC needs assessment. The findings showed that unless something was done, most patients, attendants and staff were at high risk of being exposed to TB infection at the health facilities: patients, including TB suspects, mingled freely in waiting areas, ventilation in consulting rooms and laboratories was poor, most of the staff were not aware of recommended TB-IC measures, and TB suspects waited for long hours in queues with other patients. Over the last year, more than 100 health workers were trained in all aspects of TB-IC, 14 health facilities put in place interventions such as triage, moving TB suspects to the front of the line, creating separate waiting areas, appointing one staff member to ensure that windows are opened at the start of each day's activities, assisting health centers to develop TB-IC plans, radio programs to enhance community awareness, and renovate the laboratory of a health center to improve ventilation.

colophon

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What is TBCTA and TB CAP?

The Tuberculosis Control Assistance Program (TB CAP) is a USAID five year cooperative agreement (2005-2010) that has been awarded to TBCTA with KNCV Tuberculosis Foundation as the lead partner. The Tuberculosis Coalition for Technical Assistance (TBCTA) is a unique coalition of the major international organizations in TB control:

American Thoracic Society (ATS), Centers for Disease Control and Prevention (CDC), Family Health International (FHI), International Union Against Tuberculosis and Lung Disease (The Union), Japan Anti-Tuberculosis Association (JATA), KNCV Tuberculosis Foundation, Management Sciences for Health (MSH), World Health Organization (WHO).

The aim of TB CAP is to reach the following specific goals in the TB CAP countries with significant investment:

- 90% of public clinics implementing DOTS;
- At least 70% case detection rate;
- At least 85% treatment success rate and/or cure rate;
- 75% of countries meeting MDR TB quality standards defined by TB CAP;
- 100% of countries where nationwide TB and HIV programs effectively coordinated.

TB CAP focuses on five priority areas:

- Increasing political commitment for DOTS;
- Strengthening and expanding DOTS Programs;
- Increasing public and private sector partnerships;
- Strengthening TB and HIV/AIDS collaboration;
- Improving human and institutional capacity.