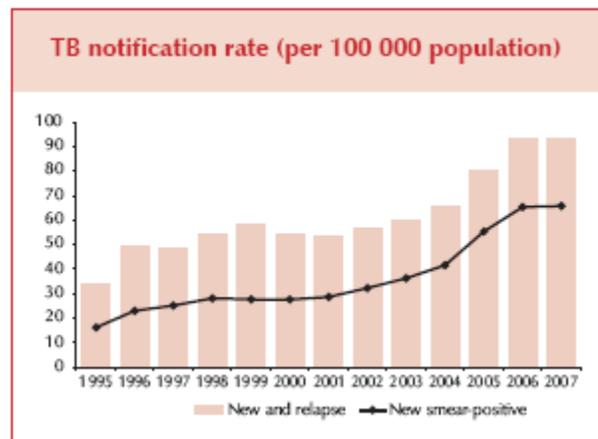
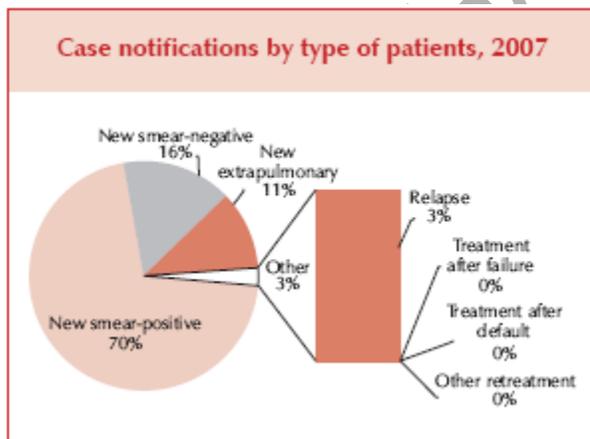


March 24, 2012: World Tuberculosis Day 2012

Tuberculosis (TB) is a major public health problem in Bangladesh. In 2008, the World Health Organization (WHO) ranked Bangladesh sixth among the world's 22 high-burden TB countries. In 2007, with a population of 150 million, estimated prevalence and incidence rates of all forms of tuberculosis were respectively 387 and 223 per 100 000 population. In 2007, there were an estimated 353,103 new cases, 1,587,797 of which were sputum smear-positive (SS+) TB cases; more than 70,900 were TB related deaths. The TB mortality rate (45 deaths per 100,000 population) in Bangladesh is 45 percent higher than the Southeast Asian region average (31 deaths per 100,000 population). Bangladesh's National TB Control Program (NTCP) began implementing DOTS (the internationally recommended strategy for TB control) in 1993. DOTS coverage reached 100 percent in 2006 and remained at that level in 2007.

TB epidemiological profile, Bangladesh

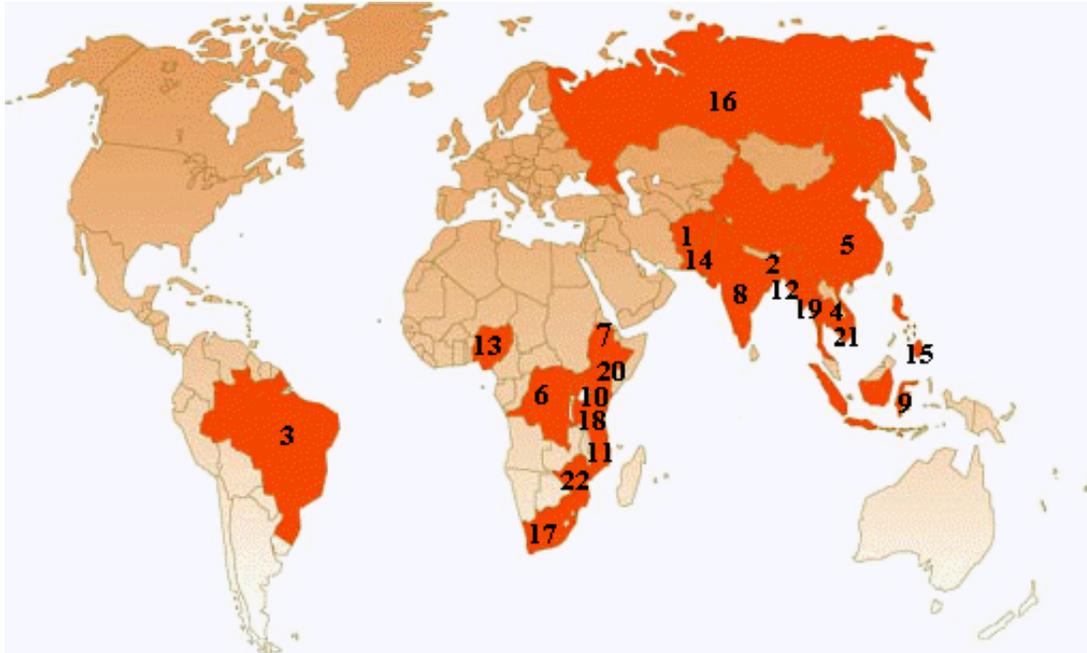
TB Unit of the WHO Regional Office for South-East Asia



TB is a world-wide problem

TB is an airborne disease which can affect anyone but it is more likely to affect people whose immune systems are already weakened. For this reason it is more likely to affect people in poor countries - who may be malnourished and have poor access to healthcare generally.

The 22 countries shown on the map accounts for 80% of the TB cases in the world



Alphabetical List of Countries:

- | | |
|---------------------------------|------------------|
| 1. Afghanistan | 12. Myanmar |
| 2. Bangladesh | 13. Nigeria |
| 3. Brazil | 14. Pakistan |
| 4. Cambodia | 15. Philippines |
| 5. China | 16. Russia |
| 6. Democratic Republic of Congo | 17. South Africa |
| 7. Ethiopia | 18. Tanzania |
| 8. India | 19. Thailand |
| 9. Indonesia | 20. Uganda |
| 10. Kenya | 21. Viet Nam |
| 11. Mozambique | 22. Zimbabwe |

95% of the deaths due to TB occur in the developing world. The number of people who died from TB was 1.4 million in 2010, including 350,000 people with HIV equal to 3800 deaths a day. In India, 2 patients succumb every three minutes to this disease. Even though the nations are putting in their best efforts to control this disease, mortality has been increasing. What makes it worse are the new drug

resistant forms of TB that are now rearing their head. On World TB day 2012, we bring you some facts about TB people should know:

1. Most of us have latent TB foci inside our lungs. We all are exposed to the organism early on in life and would have formed foci of infection in the lungs (primary TB). Our immune system would have contained the infection and prevented us from suffering the disease. It is when our immune system becomes weak for some reason or is overwhelmed by the infection or any other cause, that we suffer the disease (reactivation). The organisms can travel from the foci of infection in the lungs to other sites leading to secondary infection (TB of lymph nodes, spine etc).

2. By maintaining good health and immunity, you can prevent getting infected with tuberculosis. Nutritious food, adequate sleep, exercise and leading a life with minimal stress go a long way in helping our immunity fight any infection well including TB. Work on improving your immunity by including diet rich in antioxidants. Have atleast 4-5 servings of fresh vegetables and fruits everyday. If you cannot have it due to certain practical constraints, make sure you take your daily dose of antioxidants/multivitamins after consulting your doctor. Antioxidants help fight free radicals produced in the body due to any kind of disease/stress and help in cell repair.

3. Fresh air and sunlight can help prevent TB. The microbes in TB thrive in cold, damp places. Whether you are at home or office, remember to open all your windows for a major portion of the day to let the sunlight and air in.

4. Tuberculosis primarily affects the lungs but can affect other organs too. Cough that lasts for more than 3 weeks, streaks of blood in the sputum (phlegm), low-grade fever, difficulty in breathing and unexplained weight loss are the commonest symptoms of TB of the lungs. TB of other organ systems present with varied symptoms. For example: **TB of the skin** could present with a non healing ulcer, **TB of the spine** could present with backache, stiffness or even swelling in the back/groin, **TB of the intestines** could present with abdominal distension and absolute constipation. Even a non-healing anal fistula could be due to TB. **TB of the lymph nodes** can

present with swellings at multiple sites of the body. TB of the covering of the brain and spinal cord can cause **TB Meningitis**, especially in children.

5. With the BCG vaccine, you cannot be resistant to TB throughout your life. It also doesn't help in secondary forms of TB. That said, one still needs to get the BCG vaccine soon after birth.

6. TB is a fully treatable disease if the full course of medications are taken properly and regular follow-ups are done with the doctor. The TB control program in India, was started as RNTCP (Revised national tuberculosis control program) in 1993. The program has made great progress over the last two decades. Having collaborated with private hospitals and medical colleges the reach of the program is 100% in India. The mainstay of the program is prompt diagnosis (by sputum testing and X ray of the chest), commencing the treatment as early as possible and making sure that the patient is compliant with the treatment (Directly observed treatment-DOTS). The main drugs used for TB are Isoniazid, Rifampicin, Pyrazinamide, Ethambutol and Streptomycin. But always take these medicines under the doctor's supervision because indiscriminate use can lead to jaundice and liver failure, kidney failure. The duration of the treatment varies from case to case and is at least for 6 months. Testing and treatment is available free of cost at all government hospitals, primary and community health centres.

7. Not taking the full course of TB medicines as per the doctor's prescription is one of the major hurdles faced by the TB prevention programs. It can lead to the organisms developing resistance to the first-line drugs used in treatment causing MDR-TB (multi-drug resistant TB).

8. Multi-drug resistant TB does not respond to standard TB drugs, is difficult and costly to treat. The MDR-TB prevalence is estimated to be 2.3 per cent among new cases and 12-17 per cent among re-treatment cases. One of the best ways to prevent it is by completing the entire course of anti-TB drugs in the dosages prescribed by the doctor.

9. One of the major causes of infertility among women from the lower socio-economic conditions is genital TB. When latent bacilli in the lungs get reactivated, they often spread to different parts of the body including the genital tract. It can infect either the uterus and/or the

fallopian tubes and usually does not show any symptoms. A very difficult disease to diagnose, only the culture from a tissue sample obtained from a genital tract can help.

10. Children including babies can suffer from TB, but often go undiagnosed. According to the WHO, around half a million babies and children get ill with TB every year and 70000 die due to it. Children under three years of age, especially those who are malnourished and with compromised immune systems are particularly prone to the disease. However, the symptoms often go unnoticed causing higher mortality rates. To prevent TB in children, get them immunized with the BCG vaccine soon after birth. People in your family, including house-help, who would come in close contact with the children need to be screened. Also, breastfeeding the baby for at least six months increases their immunity against all infections including TB

The TB program benefits from Global Fund support through Rounds 3 and 5. This support is channelled through two principal recipients: the External Resource Division (ERD) of the Ministry of Finance (MoF) and BRAC. WHO provided strong technical and operational support to the program. In addition, USAID has been providing financial assistance to NTP directly while several other donors are funding TB activities through NGOs. Some support for TB control is also made available through the HNPSP.

Major Achievements

- ⌘ Enhanced quality of laboratory services;
- ⌘ Establishment of a national MDR-TB coordination committee, clinical management, social support committee, laboratory working groups;
- ⌘ Improved coordination and collaboration between NGO partners and between the government and NGOs;

- ❖ “Managing Information for Action” (MIFA) courses held for central and district level staff;
- ❖ Scaling up of public-private partnership (PPP) and involvement of civil society and community;
- ❖ Improved drug management through implementation of SOPs; and
- ❖ Improvements in data management software.

Major challenges and constraints

- ❖ Sustaining the quality of DOTS;
- ❖ Maintaining implementation in the face of high turnover of government and NGO staff;
- ❖ Scaling up the management of MDR-TB;
- ❖ Building linkages with the National AIDS and STI program for TB/HIV;
- ❖ Further scaling up and strengthening PPP;
- ❖ Addressing drug management issues that have led to emergency procurements; and
- ❖ Lack of sufficient supportive supervision
- ❖ Enhancing evidence-based program management

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