

## EGYPT: Water pipe smoking a significant TB risk



Photo: [Martina Fuchs/IRIN](#)

Water pipe smoking and the sharing of the pipe with someone with pulmonary TB can lead to a risk of TB transmission

CAIRO, 24 March 2008 (IRIN) - The smoking of the traditional 'shisha' water pipe is increasingly emerging as a significant health risk in Egypt, due to air-borne tuberculosis (TB) transmission from pipe sharing and uncontrolled, manual preparation of the pipe.

[\[Read this report in Arabic\]](#)

Rania Siam, professor of microbiology at the American University in Cairo (AUC), said the most important risk factor for TB infection was close household contact with a TB case, but she said water pipe smoking (WPS) and the sharing of the pipe with someone with pulmonary TB led to a great risk of TB transmission, especially among young adolescents.

"'Shisha' [smoking] is Egyptian culture, where people smoke tobacco and inhale directly from this device. If I smoke 'shisha', some bacteria may reside in it. When you go to a fancy bar, they do change the mouthpiece, but what about the tube of the pipe? And the water? You still have water in the container where the bacteria resides," she said.

The World Health Organization (WHO) regional office in Cairo estimates that 17 percent of TB cases in the eastern Mediterranean are attributable to the [smoking of water pipes](#).

According to the [latest WHO statistics for Egypt](#), 31.6 in every 100,000 people had TB in 2005, and the rate of new TB cases that year was estimated at 25 per 100,000 people.

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The WHO regional office said lack of TB control initiatives led to inadequate health care behaviour, affecting patients' diagnoses and treatment, and it therefore called for new public health care strategies.

### Health Ministry statistics

Essam Moghazy, manager of the National Tuberculosis Control Programme (NTCP) at the Egyptian Ministry of Health, said the country's current case detection rate was 70 percent and that the treatment success rate was 87 percent. He said there were now lower rates of treatment interruptions among patients.

In contrast, Akihiro Seita, TB adviser at the WHO regional office, said the non-compliance of patients with, and non-adherence of physicians to, the recommended treatment regimens constituted a major challenge that sustained TB transmission.

WHO's Stop TB Strategy was launched in Egypt in 2006. The strategy focuses on DOTS (Directly Observed Treatment Short Course). This consists of six key components: political commitment with increased and sustainable financing; case detection through quality assured bacteriology; standardised treatment, with supervision and patient support; an effective drug supply and management system; monitoring and evaluation; and impact measurement.

### NGO involvement

The NTCP is working with several NGOs to raise public awareness about TB, especially through TV and radio advertisements.

"We try to involve all health care providers, NGOs, health insurance organisations, prisons. In some sectors the collaboration is good and in some sectors it's bad. But with orientation meetings and workshops we hope to improve collaboration," the NTCP's Moghazy said.

But according to the WHO's Seita, there is only a limited contribution by NGOs and community-based organisations, leading to "low awareness in the community about the disease and inadequate health care behaviour".

One example of NGO involvement is Save the Children Egypt, which refers suspected cases to the country's Health Insurance Organisation for diagnosis and medical treatment, but does not run its own TB programme.

### New strains

According to Amal Hussein of the Save the Children office in Minya, a major challenge is that in the last couple of years a new strain of the TB mycobacterium began to appear in Egypt. It causes enlargement of the intestinal organs, stomach, lymphnode and abdomen to which the standard antibiotic treatment does not respond.

The AUC's Rania Siam said: "Every newborn child in Egypt gets Bacille Calmette Guerin (BCG) vaccine to protect it against TB. The emerging TB strains are now resistant to this vaccine, and to antibacterium available on the market. The problem is that the bacterium is mutating to survive."

There is a need for the development of new vaccine types and drugs to prevent infection from the emerging bacteria strains. "Lots of research is going on at the moment... in order to identify the prevalent strains and to find appropriate vaccines to fight the new strains," Siam said.

### Curbing WPS

According to a 2005 article by the American Academy of Pediatrics, public health strategies for controlling WPS should focus on the implementation of new laws to limit the acquisition and use of water pipes, and better health education targeting adolescent smokers.

The WHO is currently implementing a Tobacco Free Initiative (TFI) in Egypt, to reduce WPS through tougher legislation and smoking cessation interventions.

In order to limit air borne TB transmission, Siam recommends that people either stop smoking the pipe completely or bring their own 'shishas' to the bars to minimise health hazards. But Yahia Ali, an AUC mechanical engineering student, said the size of the 'shisha' meant such an initiative was impracticable.

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**Theme(s):** [Early Warning](#), [Health & Nutrition](#), [Aid Policy](#),

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The WHO estimates that smoking shisha is responsible for 17 percent of TB cases in the eastern Mediterranean region