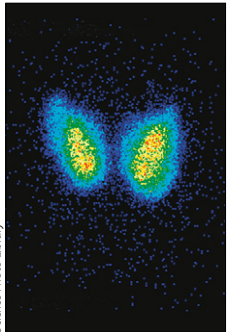


Thyroid disease—more research needed



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See [Seminar](#) pages 1142 and 1155

The world faces a burden of thyroid disease that has reached epidemic proportions. An estimated 200 million individuals worldwide have a thyroid disorder. Are existing treatments for thyroid disease working? Are symptomatic and asymptomatic thyroid conditions clinically meaningful enough to warrant treatment? In today's *Lancet*, two Seminars seek to provide answers to these and other important questions in a state-of-the-art update of two different thyroid pathologies.

David Cooper and Bernadette Biondi discuss asymptomatic thyroid disease, which includes subclinical hyperthyroidism and subclinical hypothyroidism. The authors emphasise that the clinical significance of this mild degree of thyroid dysfunction is unknown. They point out existing disagreement among professional societies and experts about screening for subclinical thyroid disease. It is perhaps unsurprising that the benefits of treatment in subclinical thyroid disease are poorly characterised. Cooper and Biondi conclude that large-scale randomised trials are

urgently needed to inform future care for individuals with subclinical thyroid disease.

In the second Seminar, Jayne Franklyn and Kristien Boelaert write about thyrotoxicosis. There are three main causes of thyrotoxicosis: Graves' disease, toxic nodular hyperthyroidism, and thyroiditis. The authors point out that the available treatments for thyrotoxicosis have been unchanged for 60 years and vary in effectiveness and their burden of adverse events. They argue that there is a need to find novel and safe ways to change the underlying disease processes, rather than simply stop excess thyroid hormone production.

Thyroid disease affects seven times more women than men, making it an important and understudied topic in women's health. There is a need for greater attention to research on thyroid disease to be conveyed clearly on May 25—World Thyroid Day—and thereafter by care givers, professional societies, and patient advocates.

■ [The Lancet](#)

Tuberculosis control and elimination in 2012 and beyond



Jenny Matthews/Panos

See [Comment](#) page 1077

See [World Report](#) pages 1089 and 1090

See [Perspectives](#) page 1093

For more on the [Thibela TB study](#) see <http://www.aidsmap.com/Thibela-TB-Community-wide-IPT-did-not-improve-TB-control-in-South-Africas-mines-at-the-population-level/page/2285760/>

For more on [tuberculosis vaccine development](#) see http://www.stoptb.org/wg/new_vaccines/blueprint.asp

For more on [zero deaths](#) see [Comment Lancet](#) 2011; 378: 1449–50

Tuberculosis killed 1.45 million people in 2010 and about 500 000 people have drug-resistant disease. Treatment is lengthy, toxic, and costly. Moreover, diagnosis and drug-susceptibility testing are slow. On March 15, results from the Thibela TB study presented at a late-breaking session at the 2012 Conference on Retroviruses and Opportunistic Infections failed to show benefit of community-wide isoniazid preventive therapy compared with routine targeted therapy in 27 000 South African miners. The trial hoped to set a precedent for a control policy in high-risk groups such as the miners, up to 7% of whom develop tuberculosis every year because of the predisposing conditions of silicosis and HIV infection.

Experts could therefore be forgiven for feeling gloomy ahead of World TB Day on March 24, but should not be. Despite a woeful funding gap in 2012 of US\$1.7 billion, tuberculosis incidence is falling (from 9.4 million in 2009 to 8.8 million in 2010). 41 million people were treated with directly observed therapy in 1995–2009, and fewer people are now dying from the disease. Ten new or repurposed tuberculosis drugs are in phase 2–3 trials, which hopefully will reduce treatment times to

about 4 months, compared with present multidrug-resistant tuberculosis regimens lasting 18–24 months. Faster treatment will greatly improve adherence, reduce transmission, and cut costs. Vaccine development has also received a boost of \$220 million over 5 years, which was pledged to the non-profit vaccine developer Aeras by The Bill & Melinda Gates Foundation. Case detection is troublesome (it has plateaued at about 60%) but increased funding for Xpert MTB/RIF assays or use of low-cost alternatives, such as the point of care Determine TB-LAM, might improve detection rates in low-income settings.

An ambitious target to be discussed on World TB Day is that of zero children dying from tuberculosis by 2015. To reach this goal, sustaining the gains seen so far and improving case finding will be vital. Some observers argue a broader vision is needed, pursuing zero infections, zero deaths, and zero stigma from tuberculosis for people of all ages. Both these objective will require commitment at the highest political levels and should be on the agenda when G20 leaders meet in Mexico in June. ■ [The Lancet](#)