

Bridging Implementation, Knowledge, and Ambition Gaps to Eliminate Tuberculosis

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[Tanya Johnson] Hello. I'm Tanya Johnson. With me today is Dr. Kenneth Castro, Director of CDC's Division of Tuberculosis Elimination. We're talking about a paper in the March 2011 issue of CDC's journal, *Emerging Infectious Diseases*. The article looks at bridging implementation, knowledge, and ambition gaps to eliminate tuberculosis. Welcome Dr. Castro.

[Kenneth Castro] Thank you.

[Tanya Johnson] Dr. Castro, would you briefly tell us about the history of TB and the current strategy to eliminate the disease?

[Kenneth Castro] Well tuberculosis was the leading cause of death in the United States at the turn of the 20th century. Research uncovered drugs that could be used to cure persons with tuberculosis, and using these medications helped tuberculosis become a very rare disease. However, we lowered our guard and experienced a resurgence of tuberculosis in the United States between 1985 and 1992, mostly associated with the HIV epidemic and drug resistant form of tuberculosis. To recover from this, we developed a strategy that is meant to address the implementation, knowledge, and ambition gaps.

[Tanya Johnson] Who are the people most likely to get TB and what can be done to detect and treat them?

[Kenneth Castro] In the United States and other parts of the world, persons with HIV infection have a very high risk of developing tuberculosis. Recent contacts of persons with tuberculosis also carry a risk. Other persons with underlying medical conditions that weakens the immune system, and we've also learned that tuberculosis preys on the poor and the disenfranchised in all societies. And it's clear that we need to find the ability to screen and provide the treatment available to these persons.

[Tanya Johnson] You mentioned a knowledge gap. Would you please explain what that means?

[Kenneth Castro] Well, for one thing we don't know what are the immune factors that protect people against disease, which is necessary for the development of a safe and efficacious vaccine. We also don't know who's at highest risk once infected to progress to develop TB disease. There are new drugs that are needed for the treatment of drug resistant tuberculosis, and the role of some of the new promising rapid diagnostic tests, we still need to learn how to best use them.

[Tanya Johnson] Dr. Castro, earlier you mentioned the ambition gap. Would you tell us what impact the ambition gap has in the fight against TB?

[Kenneth Castro] In the fight against tuberculosis it is very important to have the resolve to pursue elimination until it is finally achieved. Paradoxically, we very often see that with progress comes complacency, and there's a risk of really eliminating a program before you eliminate the disease, and in fact, part the quote I provide comes from Dr. William Brown who mentioned that in the 1960s, and we call that Brown's Law. Also, as a disease becomes less common, you're likely to find people who are no longer proficient or have expertise. So we need to make sure that the training and the education is available, as well as centers of excellence to provide these services.

[Tanya Johnson] Finally, what do you see as the greatest challenges in eliminating TB?

[Kenneth Castro] The greatest challenges in eliminating tuberculosis require that we ensure, we address, all three mutually reinforcing areas. One, we need to make optimal use of the tools available to us. Second, we need to continue the research to find new tools because some of the ones we have are a bit outdated. And third is having the determination and the resolve as a society to pursue the elimination of tuberculosis until it is achieved and avoiding premature declarations of victory and stopping before the end goal.

[Tanya Johnson] Thank you, Dr. Castro. I've been talking with CDC's Dr. Kenneth Castro about a paper that appears in the March 2011 issue of CDC's journal, Emerging Infectious Diseases. You can see the entire article at www.cdc.gov/eid. If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. That's e-i-d editor – one word - at-c-d-c dot gov. I'm Tanya Johnson, for Emerging Infectious Diseases.

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