Interview with an Australian specialist

Tuberculosis: a deadly epidemic out of control

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11 December 1998

Alarming statistics on the spread of tuberculosis were presented in a World Health Organisation report, entitled *TB--A Crossroads*, released last month at an international conference in Bangkok on lung disease. Despite the availability of cheap and highly effective treatment methods, nearly three million people are dying from TB each year around the world.

Newly-appointed WHO director-general Gro Harlem Brundtland told the conference: 'A disease that many of us believed would disappear in our lifetime is killing more people today than at any time in our history.'

Five years ago WHO declared the resurgence of tuberculosis an emergency. Since then the disease has spread from Africa to Asia. According to the WHO report, six Asian countries--India, China, Bangladesh, Pakistan, Indonesia and the Philippines--were responsible for 56 percent of the eight million tuberculosis cases reported last year. TB is also reaching danger levels in Russia and Eastern Europe.

Three main causes were identified for the epidemic:

1. The spread of HIV, which attacks the body's immune system, is greatly increasing the number of active TB cases capable of infecting others.

2. Badly-administered drug treatments and interruptions to drug supplies have led to a rapid growth of multi-drug resistant strains of TB that are difficult and expensive to treat and more likely to be fatal. Only 15 percent of people with the disease were treated with the recommended regime of prescribed drugs taken under close monitoring.

In 80 percent of areas affected by the disease, drugs are available in pharmacies without prescription or through black market distributors. As a result, TB sufferers are taking drugs without medical guidance, increasing the likelihood of drug resistance occurring.

3. The growth of poverty and social dislocation as a result of the economic crisis in Asia and internationally has compounded the problems, interrupting drug supplies and putting treatment beyond the reach of many. Malnutrition and poor health conditions weaken the immune system and increase the likelihood of active TB developing.

The *World Socialist Web Site* interviewed Dr Michael Levy, director of the Community Health and Anti-Tuberculosis Association in Australia, on the growing incidence of HIV and TB in Papua New Guinea.

Dr Levy, who attended the Bangkok conference, has recently visited Papua New Guinea on two occasions on WHO's behalf to review the operations of a small pilot anti-TB project in Lae--the only such project in the country. He warns of the dangers of TB and HIV rapidly spreading out of control in PNG due to the breakdown of basic diagnostic services and elementary health care.

WSWS: In a recent interview you warned of a HIV/TB epidemic in Papua New Guinea of 'African proportions'. Can you elaborate?

ML: What you have in Africa and what you have in Papua New Guinea is the confluence of high levels of HIV and TB infection. HIV is the single biggest amplifier of tuberculosis. To understand that you need to know that tuberculosis actually occurs in two stages. In the first stage you get infected but at that point you are not infectious. Your immune system can contain the bacterium quite effectively. Then at a later stage in life, only about 5 percent of otherwise healthy people progress to the second phase of tuberculosis, which is destructive of regions of the lungs, coughing of blood, etc. At that point you are highly infectious.

HIV accelerates that process. Instead of a 5 percent risk in a lifetime, it becomes something like a 10 percent annual risk. So it is something like a 20, 30, 40 times amplification of the cycle and there is nothing that man has come across up to now that has done that as effectively as HIV. In countries like sub-Saharan Africa and unfortunately PNG, HIV is quite advanced in the community and testing is done so poorly. There is very little that you can do for people with HIV but one can diagnose them and then assess the risks and act accordingly.

In PNG testing is no longer widely available and there are reasons for that. People are shutting the testing facilities. Behind the scenes, health care workers aren't getting paid a salary. Aid posts, which were set up and formed a widespread network up to 35 years ago, are closing down. People are just literally not turning up for work any more, so the aid posts aren't being manned.

WSWS: What are the reasons for the breakdown of the health system?

ML: I am sure it is a complex situation. Part of it is that the money is not coming from the central government through the provincial governments and on to local authorities to pay these field workers. The training of health workers has not continued apace with attrition. Simple courses for the training of medical technologists who can diagnose a few diseases like malaria, HIV and tuberculosis were stopped about two years because of lack of funding. In the past the PNG government has been bolstered by the Australian government through the international aid budget. But the Australian government is reluctant to give aid to the current PNG government because it perceives it as corrupt.

WSWS: Where are the areas of greatest risk of HIV and TB--in the towns, or the villages and rural areas?

ML: HIV is a viral disease. It has a reasonably short incubation period. It has a short--what we call--epidemic curve and so we expect it to peak in a couple of years. TB in contrast is a chronic bacterial disease that definitely has a cycle of decades and it is even

hypothesised that it has a cycle of centuries. Europeans got exposed to TB hundreds of years ago and genetically we have some resistance to it--not so Australian Aborigines, not so Negroid Africans, not so PNG's people. These countries were exposed to TB for the first time when colonisation arrived.

Colonisation in PNG followed a very specific pattern. It was initially on the coast then it went up the rivers and then onto the highlands. That pretty well mirrors the spread of TB--it started in the city around Lae, Wewak and Port Moresby and only in the last 40 or 50 years did it make its way up into the highlands.

That means that under any circumstances you would expect a rise in the incidence and prevalence of TB in those communities. But it happened much at the same time--about the same era--as the introduction of HIV. That is a pretty unique situation where the two diseases are going hand-in-hand into communities that have immunity to neither, the ideal circumstances for transmission of both, and have no effective treatment for either.

It is pretty devastating. That is why I said the epidemic is of African proportions. In Africa they are cutting back on their GDP estimates and cutting back on their population estimates because of HIV. We are going to have a lost generation in Africa and in parts in Asia.

WSWS: You say there is only one anti-tuberculosis project operating?

ML: It is a small project that has been running in the Lae district for about a year now. It is very small and it is fragile. We were evaluating that and encouraging them to expand the program and also hoping that it would be taken up in what is called National Capital District--Port Moresby. That hasn't yet happened to my knowledge.

The project has taken the diagnosis of tuberculosis away from x-rays and towards what is called sputum microscopy. It is a simple test, if the laboratory technicians were just being trained. But they aren't. You get a sputum sample and you look at it under the microscope and you look for bacteria. It is a much more accurate test than an x-ray. An x-ray just shows that at any time in your lifetime you had TB. But I have already said that only 5 percent go on to the infectious type. So you would be overtreating and that is what a lot of countries do.

This project has refined the diagnosis and it is using very simple technology. They also send the person home and treat them in the community. They enhance the skills of community health workers so that they can supervise the medication. It also means that they have to have a good supply of drugs and that is somewhat questionable but it is certainly possible in PNG. It follows pretty well what WHO recommends. It is shown to work in many countries of the world and there is no reason why it shouldn't work in PNG if it were given basic support. But basic support requires health workers to get salaries, drugs to be supplied reliably, lab techs to be trained. It just doesn't fall off the back of a truck.

It is happening in small areas but you wonder how viable it is. These programs are only viable if they expand and if they then become training centres for the next rollout of the project. That hasn't happened in over 12 months. What is encouraging is that because of the limited success of this project the hospital authorities in Lae, who faced some financial trouble and had to close a ward, were actually able to close one of the two TB wards. That should be a sign to other health administrators that there are huge savings to be made by stopping over-diagnosis of the disease and treating only those cases that need treating--properly in the community. It should be a huge message in a rational system. But it isn't a rational system.

WSWS: What are the costs involved in diagnosing and treating a TB patient?

ML: You need six to eight months of supervised treatment at least three times a week. They say that the costs on the world market are about $US30 per course. I suspect that PNG wouldn't be able to buy them at that price but would have to pay a bit more. But that is only the drug costs. You have to train your lab techs. You have to have trained health workers. You have to have x-ray and hospital backup. All up, for each cured case you must be talking at least $A100--that is for each case cured.

There is a backlog of cases in PNG and it is hard to predict. Once the program got going, they couldn't have more than 500 new cases a year. If we said it was $100 a case then it would be about $50,000 a year all up. That is a hole in their health budget but these diseases are a huge problem. HIV is not treatable under any circumstances. But TB is treatable under a proper program.

WSWS: According to the latest WHO estimates, the incidence of HIV in Papua New Guinea was two per 1,000 last year and seven per 1,000 for TB.

ML: That would be what we call prevalence--that is untreated cases today. Once they treated that backlog I wouldn't expect under any circumstances more than 100 per 100,000 which is 1 per 1,000. That would be very high for a tropical country. TB is a rare disease once you get a hold on it and it is not inconceivable that even PNG could control it. But one of the corner posts to their controlling of TB has to be controlling HIV. You can't do one without the other.

WSWS: What were the major issues at the Bangkok conference?

ML: That TB is out of control. That is it. It says it all. And the two reasons are HIV and drug resistance. But I have not spoken about drug resistance in the PNG context because I don't perceive it as the problem there. One of the strong points in PNG's favour is that they have very strong drug controls. You can't just go to a pharmacy even in Port Moresby and just buy a quotient of anti-TB drugs. You have to get it prescribed through the hospital and you do need to get supervised. On that regard, PNG is looking good.

In Eastern Europe, South Africa and parts of Asia like the Philippines, India, Pakistan, Bangladesh, even China, drug resistance is a huge problem and they are also countries with unrecognised HIV problems. So they have the confluence of three conditions colliding--they are just disasters.

See Also:
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The worst year in history for tuberculosis
[20 June 1998]