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Chiang Rai Prachanukroh Hospital Visit
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Title:

Viewing TB Through A New Lens: My Experience Visiting Chiang Rai Hospital

Abstract:

As a public health student visiting from the United States, I had the opportunity to visit Chiang Rai Prachanukroh Hospital. I observed the tuberculosis clinic, inpatient ward and microbiology laboratory. The experience was beneficial for me to understand tuberculosis prevention and care in a high-burden setting and to observe the differences between Chiang Rai and my home in the United States.

Full text:

As a public health student visiting from California, United States, I was fortunate to have the opportunity to visit Chiang Rai Prachanukroh Hospital. I have been working in tuberculosis (TB) surveillance and epidemiology in California for three years, and for the past two years I have also been enrolled in the Executive Master of Public Health Program at the University of Washington. I was very enthusiastic about visiting Chiang Rai and working with the TB/HIV Research Foundation (THRF) as my interest is in tuberculosis and global health. In California, there are over 2,000 TB cases newly diagnosed each year among a population of 39 million, which makes the case rate 5.5/100,000.¹ While the TB case number itself is similar to that of Chiang Rai, the case rate is much lower due to the difference in population size; Chiang Rai has a much smaller population of 1.2 million.

Upon first arrival to Chiang Rai, I observed the TB Clinic. I was surprised that the clinic was entirely outdoors, but it seemed to be an effective setup to prevent TB transmission. I saw approximately 60 or more patients who had travelled far and were waiting for hours to see the chest physician and to pick up their next pack of medication. Nearly all of the waiting patients were wearing surgical masks as an extra precaution. I saw some patients arrive via ambulance as transfers from other district hospitals. These patients were lying on stretchers outside at the clinic waiting to be seen as well. This was a situation I had not seen in California as hospitals

¹ Tuberculosis Control Branch, Report on Tuberculosis in California, 2015. California Department of Public Health, Richmond, CA. September 2016.

there are predominantly indoors. Also, while patients may need to wait to be seen, the time duration is shorter, and the distance they need to travel to a local hospital is not typically very far. In addition, medication is not always dispensed through a clinic at the hospital; some patients are treated by private physicians, with case management by the local public health authority. At the clinic in Chiang Rai, I was impressed by the clinic staff's ability to move patients quickly and efficiently through the visit process.

I observed an interview being conducted for THRF's research projects. The first project was aimed at expanding the screening of contacts to infectious TB patients to improve case detection and early diagnosis. The second project was aimed at improving TB treatment adherence by providing a medication box equipped with reminder alarms, sensors to detect when the patient opens the box, and a built-in cell phone for the patient to call the clinic for assistance if needed. I feel that implementation of these types of interventions is critical to improving TB prevention and care, and ultimately ending TB in Chiang Rai.

During my stay, I was also able to visit the inpatient ward at the hospital. I was surprised by the workload of the clinical staff including the nurses and doctors. There were many patients to be taken care of and limited space and resources. I observed the innovative approaches to isolate TB patients despite limited access to negative air pressure rooms. I saw areas where TB patients reside due to good ventilation. Family members were sleeping in and around the ward, and despite the hot weather, windows were open and fans were being used. This situation was different from that in California where visiting hours are limited and hospitals tend to be closed off and air-conditioned with other means of environmental infection control procedures in place.

I visited the designated sputum specimen collection area, which was open-air with a sink and lots of sunshine. This setup seemed effective for preventing TB transmission, as it kept patients from coughing around others and provided ample ventilation. The signage in the area showed how to collect good sputa which was additionally beneficial for patients and health staff. I visited the microbiology laboratory and observed a demonstration of the AutoMODS system for TB drug susceptibility testing. I also saw the MGIT and GeneXpert machines, which are used widely in the U.S. I was impressed by the mechanisms in place for testing in a timely manner and reporting the results electronically. This is very important for addressing issues of drug resistance in the community and for promptly altering treatment regimens if warranted.

Overall, the visit was a great experience for me and allowed me to view TB through a new lens. I would like to acknowledge the Director of Chiang Rai Hospital for granting permission for my visit. I appreciate the hard work that is being done to prevent and control TB, as well as the challenges that are encountered in a high TB burden setting. While there were differences observed, the principles driving TB work in both California and Chiang Rai are the same. New approaches to speed the decline in TB incidence will be needed worldwide in order to achieve the World Health Organization's goal of ending TB by 2035.² With continued investment and innovation, I am optimistic about the prospect of ending TB and preventing morbidity and mortality for future generations.

² WHO. (2015). The End TB Strategy. In. Geneva, Switzerland: World Health Organization.