

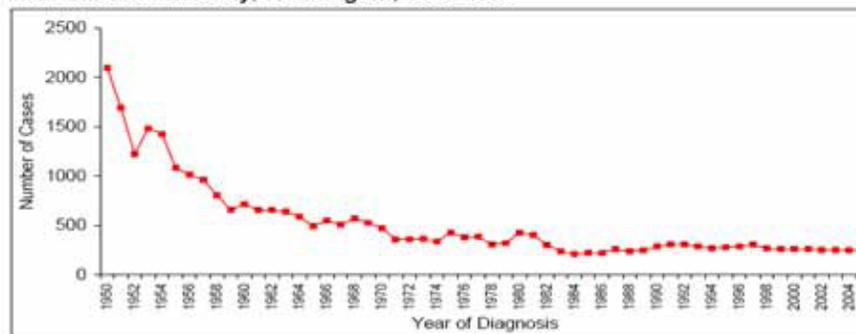
Washington State Tuberculosis Staffing Model

The Problem:

Each year the state of Washington has approximately 250 new cases of tuberculosis. As you can see in *figure 1*, this has been a stable trend over the last 20 years. In addition, the complexity of these cases has risen dramatically, creating a strain on the existing workforce. It is time to approach tuberculosis (TB) control with renewed enthusiasm, in an attempt to decrease the tuberculosis morbidity in Washington State.

TUBERCULOSIS IN WASHINGTON STATE

Figure 1
Tuberculosis Morbidity, Washington, 1950-2005



A recent National Tuberculosis Controller's Association (NTCA) TB workload study identified a need for additional full time equivalents (FTE) just to keep up with the current demand for services. To decrease the impact of tuberculosis in our state, an investment in a trained professional workforce will be needed.

In response to this need, the Washington State Tuberculosis Advisory Council (WSTAC) has created a tuberculosis staffing model as proposed by Washington State experts in the field of tuberculosis management. There was unanimous support among the advisory council for the following staffing model.

Additional Concerns:

While all our county health jurisdictions are finding and treating active cases, the complexity of these cases have risen. The social issues of homelessness, immigration, alcohol and drug abuse, mental health, and limited access to health services have all hampered our ability to effectively treat disease. The organism itself has also become more complex with multidrug resistance and co infection with human immunodeficiency virus.

The demand for personnel time has greatly increased due to investigation of suspect cases, contact investigations, establishment of directly observed therapy (DOT), new diagnostic technologies (Quantiferon, Mycobacterium Direct Test, DNA fingerprinting,

etc.), and the need for treatment of latent TB infection. With competing demands for time and resources, many TB program efforts are concentrating on case finding and treatment. This leaves little if any time for prevention and education efforts.

The Proposed Model

The following model is a “guideline” and not to be construed as an “all or nothing” model. Each unique health jurisdiction should approach the model by taking into account the ability to complete case finding, treatment of active disease, prevention (including targeted testing and treatment), and education activities. This model assumes an adequate infrastructure for management and support services. This model also assumes adequate resources for medical treatments and diagnostics.

TB Staffing Model: per 20 cases/year

Role	FTE
Physician	0.2
Case Manager	1.0
Disease Intervention Specialist	1.0
Outreach Worker	1.0
Prevention/Education Specialist	1.0

The **Physician** is a health officer, medical officer, or physician with expertise in the medical management of tuberculosis.

The **Case Manager** is a registered nurse experienced in clinical case management of tuberculosis.

The **Disease Intervention Specialist** is a healthcare worker able to place the purified protein derivative (PPD), perform phlebotomy, observe DOT, and conduct contact investigations.

The **Outreach Worker** is a healthcare worker able to observe DOT, translate languages, and complete other duties as assigned.

The **Prevention/Education Specialist** is a registered nurse or health educator who is able to organize targeted testing and treatment, create treatment and testing policies/protocols as well as create an tuberculosis education plan for the health jurisdiction.

The Solution

To decrease morbidity from tuberculosis in Washington State, we recommend that local health jurisdictions apply the TB staffing model to their health jurisdictions. Obviously, this will create a local health jurisdiction need for additional staff and money. However, tuberculosis prevention and control programs are the ideal candidate for the enhanced public health funding from the Washington State Legislature Substitute House Bill 1825. (to see the current Bill: <http://apps.leg.wa.gov/billinfo/summary.aspx?bill=1825>)

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The intent of enhanced public health funding from the state legislature is to create a disease response system capable of response at all times **and** to build capacity that quickly contains disease outbreak. Of note is the definition of “core public health function of statewide significance”. This definition includes tuberculosis.

The intent of additional funding is also to promote uniformity in public health activities around the state. The TB staffing model will serve as a guideline for uniformity around the practice of tuberculosis prevention and control in Washington State. While the TB staffing model may not “fit” for unique or smaller local health jurisdictions, creative measures such as combined health jurisdictions or regionalized TB management and education may become a logical approach to promote uniformity of public health activities.

An additional concern for enhanced public health funding from the Legislature is the ability to show the impact of increased public health funding on performance measures related to health outcomes. Washington State is currently able to measure the impact of funding through several mechanisms including epidemiology trends (Department of Health Morbidity and Mortality Data) as well as measurable outcomes that are part of the Cohort Review process.

In Summary, The WSTAC would like to propose a TB staffing model that targets decreasing the number of TB cases seen in Washington State. This goal of decreased morbidity from TB is an ideal candidate for public health funding and will provide a concrete example of how additional public health dollars are needed and how they will be spent.