

TUBERCULOSIS ELIMINATION OR ANOTHER CYCLE OF NEGLECT?

TUBERCULOSIS remains the leading infectious disease cause of death in the world today. In Oregon, however, we recorded the lowest number of cases (123) since 1925 last year.

programs was eliminated in 1972, and further deterioration in the public health infrastructure occurred in the early 1980's. The result was a national resurgence of tuberculosis in the mid 1980's,

over the next five to ten years. The elimination of tuberculosis is defined as a case rate below one per one million population. In Oregon, this means we will have achieved TB elimination when the number of TB cases is 3-4 per year. Obviously, we have a long way to go before we reach that goal, but the following five-step process is proposed as a pathway to ultimate TB elimination.

MAINTAIN CONTROL OF TB

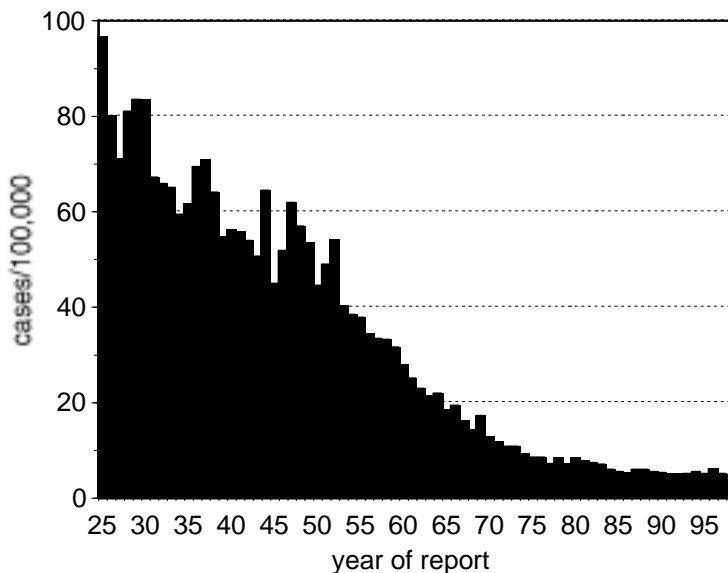
First, it is critical to maintain control of TB while adapting to changes in local epidemiology and changes in health financing and delivery systems. A reduction in the incidence of TB cases means that clinicians become less familiar with the manifestations of disease, and local public health departments get less experience in managing directly observed therapy and the social and medical complications of persons with TB.

In order to interrupt the transmission of TB and reduce the likelihood of resistant bacteria, it is recommended that all states adopt policies or statutes that mandate "treatment to cure" for active tuberculosis. Oregon statute does not currently require completion of therapy, nor does it allow a public health action for individuals who are not compliant with the completion of therapy.

The IOM recommends that the standard of therapy is a patient-centered program to assure adherence. Currently, the Health Division advocates that patient-centered, directly-observed therapy (DOT) is the standard, and over 78% of persons with TB in Oregon receive DOT directed by TB case managers/public health nurses at the local county health departments. The case management of TB case should be guided by uniform standards of quality; however, no formal standards exist in Oregon at the present time.

A regional approach to TB elimination is critical; the current links with the TB program in Washington and California will

Reported incidence of TB in Oregon, 1925-1998



The low number of active TB cases is due in part to the tremendous effort of state and local public health personnel, and raises the possibility of considering a strategy for TB elimination in Oregon.

Since the early 1930's, public health experts have considered the possibility of eliminating this dread disease. This vision was enhanced by the development of anti-tuberculosis drugs in the 1950's, and plans were advanced to eliminate TB by focusing on the aggressive treatment of TB in the remaining pockets in the U.S. Unfortunately, the decrease in active cases of TB resulted in the mistaken assumption that the disease had been beaten.

The wonderful opportunity to proceed to an elimination strategy slipped away as the categorical federal funding for TB

with the additional development of TB strains resistant to the first-line drugs. It is estimated that this loss of TB control resulted in over \$1 billion in excess medical and public health costs in New York City alone!

With a resurgence of emphasis on TB in the last decade, the number of cases has decreased to an all-time low. Our challenge is to prevent another cycle of neglect, resulting in a resurgence of active TB. This will require a coordinated effort between both the private and the public sectors. The Institute of Medicine (IOM) recently released an analysis of the state of tuberculosis management and a strategic plan for the elimination of TB in the U.S.¹ The blueprint outlined in this document will be instrumental in guiding the Health Division's approach to TB control

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be strengthened. Partnerships with the managed care and private sector in TB management are planned through cooperative agreements, which will specify performance measures and reimbursement strategies. Also, the ongoing education of public health and medical personnel is essential in order to sustain the ability of medical providers to recognize early cases of active TB.

MOBILIZE POLITICAL AND COMMUNITY SUPPORT

The tradition of social support for TB control extends back over 100 years in this country. Social mobilization enlists the support of diverse ethnic and social groups, and advocacy will reinforce the importance of TB control and elimination as a critical public health strategy. The World Health Organization has identified “political will” as a critical ingredient in the ability to sustain effective TB control programs.

The Health Division plans to convene a community advisory group with the responsibility of guiding the development of community partnerships in TB control and elimination, evaluating barriers to TB management in Oregon, improving the general information and education about TB as a significant public health issue, and assisting in the development of evaluation tools for measuring progress towards the goal of TB elimination.

SPEED THE DECLINE IN ACTIVE CASES

Targeting screening efforts at persons at risk for tuberculosis and prompt treatment of latent TB will both speed the decline of cases, and protect the health of those who are currently infected and at

risk for developing active disease in the future. An increased emphasis on the identification and treatment of those persons who are exposed to active TB will be necessary, as will the implementation of more liberal criteria for defining an “exposed person.”

Since foreign-born persons represent a large number of the active cases of TB, national policies that require skin testing of all immigrants are very reasonable, followed by a documentation of completion of therapy for latent TB prior to the issuing of a permanent residency card (“Green Card”). The IOM strongly recommends skin testing of all correctional inmates, and thankfully this is currently a standard of medical practice in Oregon’s State corrections system.

Targeted high-risk populations should continue to have access to tuberculin testing and treatment of latent disease, as is currently being performed in the homeless shelters in Multnomah County.

DEVELOP NEW TOOLS AND TECHNOLOGIES

Fourth, new technological advances in the diagnosis of TB and in vaccines will need to be developed and implemented. State and local health departments must be ready to work with academic research institutions in the development and implementation of these methodologies. The Health Division will develop population-based methodologies to identify and reach out to tuberculosis at-risk populations in anticipation of the availability of these new tools. Research into adherence strategies will need to combine medical, behavioral and social sciences in a multi-disciplinary approach to this disease.

ENGAGE IN THE INTERNATIONAL EFFORT TO ELIMINATE TB

Finally, the United States will need to take a leadership role in the global fight against TB. Financial aid to build the medical and public health infrastructure in TB-ravaged countries is essential in order to further reduce the risk in the U.S. This will also demand that local public health expertise and programmatic success in reducing TB be translated into effective tools and policies for TB control high-prevalence countries. TB-elimination coalitions between established sister-cities may be an effective way of building on established international relationships.

The elimination of tuberculosis in Oregon is a huge challenge and will require a commitment of increased federal, state and local resources. Success will require the joint effort of publicly-funded agencies linking with private health care organizations and community partners. When established, these partnerships may enable us to avoid another round of neglect that will result in a rebound of tuberculosis, the most tenacious of human infectious pathogens.

REFERENCES

1. Ending Neglect: The Elimination of Tuberculosis in the United States, The National Academy of Sciences, 2000, p 1-123.

Erratum

In vol. 49 no. 19 (Sept. 12, 2000), *The Rise of Diabetes in Oregon*, the SDDS diabetes caregiver hotline number was incorrectly printed. The correct number is 866/219-7218 (not 866/218-7218). We regret the error.