Costs and consequences of Tuberculosis in California

Tuberculosis (TB) is a life-threatening disease that spreads through the air with profound medical and economic consequences. Every year, about 2,000 Californians are diagnosed with TB disease.[1] **Half are hospitalized** and **1 in 6 die within five years of diagnosis** despite modern treatments.[2, 3] Those who survive can suffer from lifelong disability.[4]

The burden of TB is borne disproportionately by racial and ethnic minority groups; disparities in TB are startling. **Asian people born outside the US are diagnosed with TB at 50 times the rate of US-born White people,** which far out strips disparities by race and ethnicity noted in HIV, heart disease and diabetes.[5-8] Furthermore, **persons living in census tracts with low socio-economic status have higher TB incidence rates than those living in high socio-economic status census tracts**.[9] In California, people who live in neighborhoods with the lowest education have TB rates more than 3 times that of persons in neighborhoods with highest education.[10] TB also adversely affects people that live or work in congregate settings such as persons experiencing homelessness, incarcerated persons, and persons in long-term care facilities. **Persons with TB who experience homelessness are 30% more likely to die with TB than those not experiencing homelessness.**[11]

In addition to health effects, **TB is disruptive and costly**. It can have significant financial repercussions for patients and their family members as well as for healthcare, public health systems and the economy in general. Persons with TB can lose income or employment because they are too sick to work or can't go to work because they may sicken others. Many spend down savings or go into debt as a result. Medical expenses associated with the disease can further exacerbate the financial effects. **TB hospitalizations are twice as expensive and four times longer than hospitalizations for other conditions, usually about 11 days.**[2] The direct medical expense of TB in California was $76 million in 2020 and, together with the costs of premature death due to TB, **the disease cost California more than $180 million**.[12]

Yet, **TB is preventable**. Thankfully, this infection is detectable with a one-time test, and treatment can remove TB from the body. In contrast, prevention for common conditions like high blood pressure and high cholesterol require regular testing and a lifetime of treatment. **The United States Preventive Services Task Force (USPSTF), the leading national agency for assessing prevention, recommends screening for latent tuberculosis infection (LTBI) in populations at increased risk** and has established LTBI testing and treatment as standard of care.[13] In addition, **targeted testing and treatment has been shown to be cost effective.**[14, 15]

However, **more than 2 million Californians are infected with TB,** of whom **only 23% are aware of their infection and just 13% have been treated.**[16] Most often, persons infected with TB do not develop disease right away but after years of harboring their infection. **If current trends continue, there will be an estimated 4,200 deaths from TB by 2040 that could have been prevented.**

TB prevention is far less costly than TB treatment. **The cost to prevent TB for one person is low ($857)** compared with **the costs of diagnosing and treating one person with active TB disease ($43,900)**.[17, 18] Because TB is contagious, preventing TB also means preventing potential transmission of TB to the patient's family and friends.

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