

Hep C State Policy Simulator

www.hepcsimulator.org

Simulator Purpose

The Hep C State Policy Simulator (HepCSim) is a tool to help state health policy makers and practitioners make informed decisions regarding hepatitis C policy, strategy, and investments.

Overview

HepCSim's design allows users to estimate and compare the economic and population health consequences of specific policies, like universal screening, as well as potential tactics for managing hepatitis C treatment access, such as drug price negotiation. Users also have the option to assess financial and health outcomes associated with specific policy decisions over multiple time horizons (e.g., 1, 5, and 10 years) and within select subpopulations (i.e., Medicaid, Medicare, privately insured,

Example Scenarios

1. State officials could use HepCSim to explore how state-wide adoption of universal screening and treatment policies, coupled with moderate expansions in screening (10% screened annually) and treatment capacity (50% treated annually), would affect hepatitis C-related spending and health outcomes in their state between 2019 and 2030.

In **Tennessee**, they would find that, by 2030, cumulative spending on hepatitis-C related screening, treatment, and disease management **costs for Tennessee residents would be an estimated \$12.45 million less** under this universal screening and treatment policy scenario than it would be under the presumed baseline policies and practices within the state. Over the same period, approximately 1,200 liver-related deaths would be averted. **Based on HepCSim estimates, state-wide expansion of hepatitis C screening and treatment today would save lives and money.**

2. Medicaid program officials could use HepCSim to determine how hepatitis C-related spending and health outcomes would change if the state removed all prior authorization requirements and increased treatment capacity (65% treated annually) in exchange for a reduction in the assumed average cost per curative course of therapy to \$7000.

In **Texas**, between 2019 and 2023, the **Medicaid program would spend an estimated \$28.51M less** on hepatitis C-related screening, treatment, and disease management costs if antiviral treatment costs were reduced to \$7000, all treatment restrictions were removed, and treatment rates increased. Two-thirds of those savings—around \$19M—would come from decreases in disease management costs for persons cured of their infections.

Over the same period, the Medicaid policy changes outlined in this scenario would prevent 217 deaths and 395 cases of hepatocellular carcinoma. **Based on HepCSim estimates, broader access to hepatitis C treatment within Medicaid would save lives and money—particularly if expanded access was accompanied by deeper drug price discounts.**

The screenshot shows the 'Interventions' section of the simulator, which is currently set to 'Default Values'. It features three tabs: 'Screening', 'Treatment', and 'Costs'. The 'Screening' tab is active, displaying 'Screening Strategies' with an information icon and a 'Show/Hide Screening Rates' button. Below this, there are four population categories: Medicaid, Private, Incarcerated, and Uninsured. Each category has a dropdown menu for selecting a screening strategy. For Medicaid, the selected strategy is 'Diagnostic & risk-based', with 'Birth cohort (1945-1965)' and 'Universal' as other options. For Private, the selected strategy is 'Birth cohort (1945-1965)'. For Incarcerated and Uninsured, the selected strategy is 'Diagnostic & risk-based'. At the bottom of the interface are two buttons: 'Update Plots' and 'Reset'.

For More Information

State officials interested in using HepCSim to inform more complex policy analyses and decision-making may request additional assistance. To do so, please contact Jagpreet Chhatwal at JagChhatwal@mgh.harvard.edu.