Improving 'Treatment Cascade' Measures Is Vital to Fighting HIV

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Antiretroviral (ARV) treatment's ability to slow the spread of HIV in the United States will remain compromised without significant efforts to improve rates of engagement in medical care among people living with the virus, aidsmap reports. Publishing their findings in Clinical Infectious Diseases, researchers developed a mathematical model to analyze how various interventions would affect measures in the U.S. "treatment cascade."

The treatment cascade examines the proportion of those living with HIV who are diagnosed; linked to care for the virus; engaged care over time; prescribed ARVs; and who have an undetectable viral load.

The model suggested that, if today's trends continue, the United States will see 1.39 million new cases of HIV and 435,000 AIDS-related deaths over the next 20 years. This would cost the health care system an estimated $256 billion.

Targeting high-risk groups with efforts to increase testing for the virus would avert an estimated 215,000 new HIV infections, a 16 percent reduction. This would cost $49 billion, or $85,000 per quality-adjusted life-year (QALY) gained. (A QALY is one year lived in full health. Less than optimal health counts as less than one QALY, depending on how compromised health is.) Testing the entire U.S. population every three years would cost an extra $22 billion to prevent just 11,600 additional infections.

Improving linkage to care while targeting high-risk populations with testing would prevent a projected 292,000 infections, a 21 percent reduction. The price tag would be an estimated $53 billion, or $65,700 per QALY gained.

Interventions to improve ongoing engagement in care would avert a projected 494,000 new HIV cases (a 36 percent reduction), for a cost of $33,700 per QALY gained.

Combining interventions to target high-risk groups with testing, improve linkage to care, and improve retention and re-engagement in care would prevent an estimated 752,000 HIV cases (a 54 percent reduction). The cost would be an estimated $96 billion, or about $45,300 per QALY gained.

To read the aidsmap article, click here.

To read the study abstract, click here.

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