

Optima



Optima HIV Modeling Partnership

Cardno manages U.S. Centers for Disease Control and Prevention's (CDC) and the President's Emergency Plan for AIDS Relief's (PEPFAR) Office of the U.S. Global AIDS Coordinator and Health Diplomacy (S/GAC) inputs to the Optima HIV Modeling Partnership.



Overview

The Optima HIV Modeling Tool Partnership aims to leverage existing technology – the Optima Modeling Tool – to predict HIV epidemiological trends linking program costs, coverage, and outcomes. These data provide the opportunity for scenario analyses and the optimization of HIV investments. The Optima HIV Modeling Tool is a dynamic model developed by the Burnet Institute that has been successfully used to address HIV allocative efficiency in over 30 PEPFAR countries in Africa, Asia, Eastern Europe, and South America. The tool has influenced overall resource allocation, including shifting the allocation of funding to the most cost-effective mix of programs, and assisted with national strategic plan development and operational planning in many countries.

Partner:
Burnet Institute



Sector:
Health

- Key Services:**
- > Partnership Management
 - > Contracts & Funds Management
 - > Monitoring, Evaluation, and Reporting
 - > Communication & Knowledge Management



Location:
Guyana, Jamaica



Award Value:
US\$300,000

Client:
U.S. Centers for Disease Control and Prevention (CDC)



Duration:
April 2016 – March 2019

To leverage its past success, PEPFAR formed this partnership to develop a newer version of the Optima HIV Modeling Tool that includes additional features for direct use by CDC's Division of Global HIV & TB and CDC's Economics and Health Services Research Branch. It will also allow for additional model input that more closely aligns with current programmatic parameters for funding and implementing HIV care, treatment, and prevention services. Users can then assess the best combination of service modalities for improving retention and adherence to HIV care and treatment for maximizing viral suppression levels. The version of the Optima HIV Modeling Tool produced under the partnership is used directly by development and technical agencies and funders to support their work with countries and at subnational levels.

Benefits of the Enhanced Tool

- Health and clinical states to track and measure progress against the UNAIDS 90-90-90 goal.
- Ability of programs to improve linkage and retention to care and treatment, improved adherence, and reducing loss to follow-up.

Capacity Building and Technical Assistance

Burnet Institute, the implementing partner, is:

- Developing iterative:
 - > training materials
 - > user guides
 - > data templates
 - > relevant reports.
- Training CDC headquarters on using the Optima HIV Modeling Tool.
- Providing technical assistance and maintenance of the model through 2018.

Key Findings

Guyana

- By optimally allocating existing funds across regions and program areas, it may be possible to reduce new infections in 2020 to 63% of 2012 levels without additional investments.
 - With additional investments of US\$2.6 million in core programs, it may be possible to achieve the targeted 50% reduction in infections.
- > **Implementing treat-all would play a crucial role in attaining the 90-90-90 goal, and in reaching incidence reduction targets.**

Jamaica

- Scale-up would be required to achieve the 90-90-90 targets by 2020.
- > **The antiretroviral therapy program would need to reach US\$4.1 million (approximately 250% of 2015 investment levels) by 2020, which may lead to a 43% reduction in cumulative infections and a 49% reduction in cumulative deaths.**
- Implementing WHO's "treat all" strategy would have a moderate epidemic impact by 2018, corresponding to reductions of just under 5% in both cumulative infections and deaths over the next two years.
 - An estimated 30% reduction in cumulative infections and a 40% reduction in cumulative deaths between now and 2020 may be possible if the HIV response was optimally targeted toward the best mix of programs.

For more information contact Cardno:

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