Viet Nam has made significant progress in recent years responding to the country’s HIV epidemic. As the country’s capacity to address the HIV epidemic has been strengthened, and the economy grows stronger, increasing emphasis is being placed on transitioning the national HIV strategy to a sustained, country-led response. Stakeholders and planners in Viet Nam need a tool that provides fast and comprehensive data for intervention planning and decision-making.

Systems Dynamics is a mathematical modeling approach used to help understand and inform discussion around complex issues and problems. It has been applied to a wide variety of health problems including HIV in both developed and developing countries. SD enables users to assess multiple scenarios and see the interactions of key variables as they respond to various interventions. In doing so, SD models also promote increased stakeholder ownership and engagement.

The Systems Dynamics (SD) HIV/AIDS Simulation Planning & Budgeting Tool was developed in Viet Nam to provide comprehensive and insightful data to both develop these plans and to make a compelling case for a given strategy, and facilitate a greater sense of country ownership. The tool was developed under the Leadership, Management and Governance - Transition Support Project (LMG-TSP), where it was tested and piloted with provincial planners in Hai Phong with the intention of scaling it up for national use. Hai Phong was selected because it was one of the initial three provinces to launch a provincial transition process, and its provincial authorities requested LMG-TSP support for developing and testing a planning process there.

Approach

The tool was developed and refined through a series of two design studios with Hai Phong stakeholders in 2014, including representatives from the Hai Phong Department of Health, Department of Labor Invalids and Social Affairs (DOLISA), Department of Planning and Investment (DOP), Department of Internal Affairs (DOIA), Department of Finance (DOF), Provincial AIDS Committee (PAC), community-based organization (CBOs); the Vietnam Administration of HIV/AIDS Control (VAAC), PEPFAR implementing partners, and representatives of key populations.

Results

Since Hai Phong will enter its 2015 planning cycle in late 2014, the tool has not yet "gone live" for official use in decision-making. However, at the design studios, stakeholders were able...
to use the tool to:

- **Set realistic goals** for changing the course of HIV, including reduction in the numbers of new cases in different population groups and which types of programs would need to be expanded to achieve those goals.

- **Estimate anticipated funding and resource levels**, level of funding needed, and how that funding will impact intervention strategies; adjust strategies to reallocate resources in response to changing budget levels.

- **Produce reports** and export as spreadsheet data, generated by running simulations.

Following the design studios, stakeholders provided feedback on how to improve the tool, which continued to undergo refinement in mid-2014. The resulting tool is a computer-based application with an intuitive user interface that allows multiple stakeholders to simulate different scenarios and consider the effects of changes in budgets, staffing, treatment and preventive services, and other variables that affect the spread and consequences of HIV.

The tool has been migrated to a user-friendly web-based platform that can easily be scaled up for use in other provinces in Vietnam, and includes a three volume User’s Guide that reviews:

- How to use the tool
- Background on its data sources and assumptions
- A recommended strategy and process to follow for planning of HIV resources
- Frequently asked questions.

The tool and its accompanying materials are available in Vietnamese and English.

### Challenges and Gaps

At the design studios, several gaps with the tool were identified:

- The need for clear orientation on how to use the tool, while it is a relatively simple tool to use with an intuitive interface, some orientation was needed on how to operate it.

- There were questions oriented around the mathematical assumptions and formulas used in the tool.

- Stakeholders expressed a desire to be able to not only run various scenarios with the tool but also to be able to compare them easily to facilitate analyzing the results.

- While the tool was functional it still needed a finished user interface to make it more intuitive and appear cleaner for official use.

In addition to these points of feedback, which have since been addressed in the tool’s refinement, the main limitation in the tool development and implementation was time. The tool was developed in time for Hai Phong stakeholders to begin using it for their 2015 planning cycle in late 2014; however, LMG-TSP will come to a close at the end of September 2014.

### Lessons Learned

By involving stakeholders in the piloting of the tool and requesting their feedback on how to improve it, a greater sense of ownership was developed, as well as recognition of how the tool can be used to meet local needs. This approach fulfilled a project objective to produce a practical and scalable tool that caters to the specific needs of local teams involved in HIV control.

### Recommendations

The SD HIV/AIDS Simulation Planning & Budgeting Tool is now available for use in Hai Phong and to be scaled up to other provinces. It is recommended that Hai Phong use the tool in their actual 2015 planning cycle at the end of 2014. Based on that experience, VAAC and PEPFAR can work with other provinces to apply the tool. The global LMG project will continue to follow up on the relationships built in Hai Phong and Viet Nam and be available to provide technical support to local and national stakeholders as needed in the scale up of.

### Conclusion

LMG-TSP supported the development of a powerful planning tool in Hai Phong that puts data for decision-making into the hands of stakeholders. The global Leadership, Management and Governance (LMG) project will continue to be available to Hai Phong stakeholders, the Government of Viet Nam and PEPFAR for national scale up and to provide technical support for the implementation of this powerful tool.

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The Leadership, Management & Governance – Transition Support Project provided technical support for this publication. Funding was provided by the U.S. President’s Emergency Plan for AIDS Relief through the U.S. Agency for International Development, under the terms of the Leadership, Management and Governance Program, award number AID-OAA-A-11-00015. The opinions expressed herein are those of the authors and do not necessarily reflect the views of PEPFAR, USAID or the U.S. Government.