Resource Needs Model

The Resource Needs Model (RNM) is an Excel-based tool used to calculate the total resources needed at national and decentralized levels for HIV-related prevention and care, as well as support for orphans and vulnerable children. The RNM can help inform national- and district-level budgeting and strategic planning efforts; it estimates:

- The resources needed for interventions that aim to achieve expected coverage of a particular population using default unit costs; and
- Resource implications of extending interventions and coverage and introducing unit cost changes.

TO ACCESS THE RESOURCE NEEDS MODEL


The model and manual are available in English, French, and Spanish.

The RNM includes three sub-models: the prevention model (calculates the cost of specific prevention interventions and allows the user to specify up to five additional priority
populations); the care and treatment model (estimates the cost of care and treatment programs); and the mitigation model (calculates the cost of interventions to support orphans and vulnerable children). For each sub-model, there are three main elements of the methodology: population target groups, unit costs, and coverage or access targets, which are used in the model to estimate the resources required in the base year.

How Has the RNM Been Used?

The RNM can be used at the national and decentralized levels to help policymakers and program planners understand the resource requirements to achieve broad program goals. The following is an example from Indonesia.

**USE OF THE RNM IN INDONESIA FOR SUSTAINABLE PLANNING AND ADVOCACY**

**National Level**

HIV prevalence in Indonesia has dramatically increased during the past decade, with the epidemic concentrated among particular most-at-risk populations. Out of 33 provinces, the epidemic is characterized as concentrated in 19 provinces and as a low, generalized epidemic in two provinces in Papua. In July 2006, a Presidential Decree clarified the role and function of Indonesia’s National AIDS Commission (NAC) and designated a full-time secretary to report directly to the president. Subsequently, the secretary determined that the existing National HIV/AIDS Strategy (2003–2007) should be supplemented with a new Strategic HIV/AIDS Plan for 2007–2010, as well as a complementary National HIV/AIDS Action Plan that would include estimates of resource needs, performance targets, and details on how to implement the strategies. The NAC recognized that a costed action plan would facilitate dialogue between sectors and larger implementing agencies, as well as facilitate the development of national estimates for baseline coverage and unit costs. The USAID | Health Policy Initiative, Task Order 1, assisted with costing the plan.

- The project supported the NAC to form a national costing team to implement the RNM. The team included those NAC members involved in drafting the plan and members from the Center for Health Research at the University of Indonesia. Health Policy Initiative staff facilitated several meetings to orient the team to the RNM and then conducted in-depth workshops to help the team set up the model for Indonesia and learn how to use it.

![Figure 1. Resource Gap Analysis (2006–2010) for the 19 Priority Provinces](image)

![Figure 2. Resource Gap Analysis (2006–2010) for Two Provinces in Papua](image)

- The costing team collected data on socio-demographic variables, health systems, HIV prevalence, condom use, and the costs of prevention and care programs. The data were then entered into the RNM. Given the complexity of Indonesia’s HIV epidemic, two versions of the RNM were developed: one for the two provinces in Papua with generalized epidemics and another for the 19 provinces with concentrated epidemics.
(focusing mainly on interventions targeting those most at-risk for HIV). This allowed for a more accurate cost estimation of the National HIV/AIDS Action Plan. Figures 1 and 2 (above) show that the cumulative resource gaps will widen if the annual resource needs cannot be met.

- The NAC shared the draft costed action plan at workshops with decisionmakers, and the plan was finalized and printed in May 2007. This costed action plan is a powerful advocacy tool that has helped the NAC advocate for increased resources for HIV programs through increased resource needs cannot be met.

As a result of evidence-based planning and advocacy efforts, the NAC reported an increase in the national budget for HIV.

The RNM can be used with the Goals Model, which supports strategic planning by providing a tool to link program goals and funding. The Asia Epidemic Model (AEM), developed by the East-West Center, calculates expected trends in HIV infection based on usual patterns of HIV transmission in the Asia region. Linking AEM to the RNM produces data about
- The current state of the epidemic and response, and
- Alternative scenarios of the possible future course of the epidemic based on changes in risk behavior and resource allocation.

Provincial Level
With the success of the RNM application at the national level, the NAC asked the Health Policy Initiative to develop a subnational version of the RNM to support the devolution of planning and resource mobilization to the provincial level. The project worked with the costing team to adapt standardized RNM guidelines for use at the local level and to train teams in this new methodology at the provincial and district levels in three pilot provinces near Jakarta.

Sustainable Evidence-based Resource Allocation and Advocacy
At the end of 2007, Jakarta Province used its own funds and Health Policy Initiative technical expertise to use the RNM with a full Goals Model and link it with the AEM. The NAC presented findings from the linked models at a national meeting in March 2008. The Ministry of Planning embraced the approach as a national planning methodology for costing and planning HIV programs in Indonesia and began working with the NAC to roll out the process.

Subsequently, the NAC established two national facilitator teams: one team to focus on building capacity for modeling and creating costed provincial HIV action plans in line with the national targets and another team to focus on building the capacity of provincial stakeholders to advocate for increased budget allocations for provincial action plans and to adopt comprehensive local regulations (Perda) on HIV prevention, treatment, and care. The Health Policy Initiative trained both teams to build their skills as national facilitators for advocacy (which included people living with HIV, men who have sex with men, transgenders, and other most-at-risk populations) and for modeling and costing HIV action plans; this included working with (1) the costing team to adapt the existing provincial RNM guidelines to include the new version of the AEM and (2) the advocacy team to prepare a training curriculum geared specifically for this purpose. Initially, the project mentored the national facilitation teams to conduct a pilot training. To roll out the respective training for all 33 provinces in Indonesia, NAC financed and organized a series of eight trainings for 157 provincial stakeholders, and the Health Policy Initiative observed and provided technical support.

Following the workshops, participants advocated to their respective local governments to increase local budgets according to their costed action plans. As a result of these efforts, the NAC reports that at least four provinces have increased their HIV budgets—in one case, including HIV for the first time; in another case, doubling the amount; and in others, increasing local HIV budgets 100- to 200-fold over the previous year.
Not only has this approach to national planning and costing created national ownership, it has also built national- and provincial-level capacity for sustainable strategic planning. By empowering local costing and advocacy teams, the Health Policy Initiative has supported sustainable country ownership of the planning process and ensured that governments and stakeholders will continue to adapt and use the costing models.

ENDNOTES

1The RNM was initially developed by the Futures Group in collaboration with the Instituto Nacional de Salud Pública and Inter-American Development Bank. The model is now maintained by the Futures Institute. For more information, see Bollinger, L., J. Stover, A. Boule, and S. Cleary. 2006 Resource Needs for HIV/AIDS: Model for Estimating Resource Needs for Prevention, Care, and Mitigation. Glastonbury, CT: Futures Institute.