HIV/AIDS Resource Allocation and the *Goals* Model

Steven Forsythe, PhD
Instituto Nacional de Salud Pública
How do the Tools Fit?

- Surveillance Data
- Census/UN Pop Division Estimates
- UNAIDS model epidemic patterns
- National AIDS Accounts
- Costing and coverage data
- Existing effectiveness data

What is the prevalence of HIV/AIDS?
- Workbook

How will the demography be affected?
- Spectrum

What resources are being spent?
- NASA

What resources are required?
- Resource Needs Model

How should we allocate resources?
- Goals
Current Strategic Plans

Goals

Objectives

Activities

Budgets

Budgets are not linked to goals!
Problem

• Most countries now have strategic plans, but the costing is done after the plan is developed.
• There is no strategic analysis of funding and goals.
• There is no exploration of the effects of alternate patterns of resource allocation.
• There is little understanding of the cost to achieve specific coverage of key services.
How was **Goals** Developed?

- Reviewed national strategic plans from 20 countries.
- Reviewed and evaluated 241 published and unpublished papers on the impact of HIV/AIDS interventions in developing countries and the costs of interventions.
- Developed the model in Excel (also being made available in Spectrum)
- Used **Goals** in 14 developing countries
HIV/AIDS Spending in EECA Region
Spending/HIV Infection

- Ukraine
- Azerbaijan
- Russia
- Tajikistan
- Moldova
- Belarus
- Armenia
- Kazakhstan
- Kyrgyzstan
- Georgia
- Bosnia
- Macedonia
- Croatia

Costs in $: $- $5,000 $10,000 $15,000 $20,000 $25,000 $30,000 $35,000
Distribution of HIV Expenditures

Distribution of Prevention Resources

Purpose

• To improve resource allocation for national HIV/AIDS programs
  – How much funding is required to reach the goals of the strategic plan?
  – What goals can be achieved with the available resources?
  – What is the effect of alternate patterns of resource allocation on goals and cost-effectiveness?
Structure of the *Goals* Model

- Programs
  - Policy
  - Interventions
  - Prevention
  - Care and treatment
  - Mitigation
  - Program support

- Budget
- Coverage

- Improved Policy environment
- Behavior change
  - age at first sex
  - number of partners
  - condom use
  - STI treatment
  - safe injections

- New HIV infections
- Increased care, treatment & mitigation
- Treatment Coverage
Goals

HIV Prevalence/Incidence 15-49

Coverage of Care & Treatment

- Palliative
- OI Tx
- OI Pro
- ARV
- TB
Goals is intended to be a tool to assist interactive discussions among all stakeholder.
Disclaimer

• Model output depends critically on assumptions about unit costs and impact
  – Best studies are more likely to be published
  – Poorly implemented programs will not have same impact as good programs
• Difficult to capture synergies
• Cost-effectiveness is not the only basis for resource allocation decisions
How Has Goals Been Used?

- Estimated UNGASS global resource requirements
- Used to develop 2-7-10 global PEPFAR targets and country targets
- Applied to develop GFATM applications
- Used in the design of strategic plans
- Applied to evaluate progress towards the achievement of strategic plans
How has Goals been Applied? An Example from Ukraine
Situation

• Ukraine spent US$55 million per year in 2006 on HIV and AIDS.
• Costing exercise indicated Ukraine would require US$307 million in 2013 to achieve universal access.
• Budget was subsequently reduced to US$244 million in 2013 by the Minister of Finance.
• How should Ukraine prioritize its plan to achieve the greatest possible impact?
Scenarios

• Scenario 1: Constant funding
• Scenario 2: Universal access
• Scenario 3: 50% access to prevention; universal access to treatment
• Scenario 4: Universal access to prevention; 50% access to treatment
• Scenario 5: Limited funding by government
Methodology

- Defined population in need
- Defined desired levels of coverage
- Identified unit costs
- Calculated total resources required
- Modified resources required based on scenario assumptions
### Which Scenario Would You Choose?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant funding</td>
<td>$118 million</td>
<td>16%</td>
<td>1%</td>
<td>2.24%</td>
</tr>
<tr>
<td>Universal access</td>
<td>$307 million</td>
<td>80%</td>
<td>60%</td>
<td>2.26%</td>
</tr>
<tr>
<td>Emphasis on prevention</td>
<td>$242 million</td>
<td>44%</td>
<td>60%</td>
<td>2.18%</td>
</tr>
<tr>
<td>Emphasis on treatment</td>
<td>$270 million</td>
<td>80%</td>
<td>31%</td>
<td>2.32%</td>
</tr>
<tr>
<td>Limited funding</td>
<td>$244 million</td>
<td>80%</td>
<td>33%</td>
<td>2.26%</td>
</tr>
</tbody>
</table>