Cost-effectiveness analysis

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What is the goal of scenario building in HIV?

• To help decision makers understand the consequences of their actions and their impact on the HIV epidemic

• To provide them the information (costs, infections averted, approaches needed, etc.) to make decisions with maximum effects
Broader impacts of targeted interventions:
Impacts of successful early harm reduction

- 192,000 IDU infections
- 60,000 FSW infections
- 460,000 client infections
- 200,000 infections in low-risk adult populations
- 50,000 infections in MSM
- 30,000 infections in children
Costs per DALY saved

Interventions focused on sex workers and their clients: $3.23
Harm reduction for injecting drug users: $38.69
Interventions to reduce transmission among men who have sex with men: $74.33
Blood safety, injection safety, and universal precautions in health care settings: $186.08
Mainstream youth interventions: $2,722.05
Resource needs versus infections averted

- Interventions focused on sex workers and their clients
- Interventions focused on men who have sex with men
- Harm reduction interventions for injecting drug users
- Prevention of spousal transmission through VCT/PMTCT
- Mainstream youth interventions
- General workplace intervention and condom marketing
- Health care settings (blood safety, safe injection, universal precautions)

% or resources required vs % of infections averted
Cost-effectiveness using AEM
Currently Intervention Interfaces

AEM Goals

Unit costs
Pop. targets
AEM proj.

AEM Analysis Tool provides an interface for comparing up to 5 intervention scenarios

AEM Goals

AEM Interventions

Unit costs

Pop. targets
AEM proj.
Effectiveness

USAID FROM THE AMERICAN PEOPLE
Required Elements-Intervention

• Start with a baseline AEM projection

• Evidence from a successful project or program:
  – Coverage of the target population
  – Behavior change and other quantitative measures of intervention effectiveness resulting from increased coverage
  – Unit cost per person reached in the target population
Example using the Intervention Tool

- Current baseline shows 60% condom use between FSW/clients and 30% condom use in MSM
- Two potential Scenarios for the period 2010-2015:
  - Increase coverage of FSW from 40% to 80% (condom use 60% to 78%)
  - Increase coverage of MSM from 10% to 60% (condom use rises from 30% to 61%)
Comparing Scenarios (2010-2020)
Comparing Scenarios (2010-2030)

- Baseline
- 80% coverage of FSW by 2015
- 60% coverage of MSM + MSW by 2015

New HIV Infections (thousands)

- 2005
- 2010
- 2015
- 2020
- 2025
- 2030

$100m
50m
Comparing Scenarios

- Baseline
- 80% coverage of FSW by 2015
- 80% coverage of MSM by 2015
- 80% coverage of FSW and MSM by 2015

New HIV Infections (thousands)

- Baseline: $720m
- 80% coverage of FSW by 2015: $807m
- 80% coverage of MSM by 2015: $840m
Required Elements-Goals

• Start with a baseline AEM projection

• Targets and costs based National Strategic Plans:
  – Population coverage targets
  – Unit costs for various interventions
Example using Goals

• A discussion on national planning has come up with 5 proposed approaches to addressing the response:
  – FSW-focus
  – MSM-focus
  – IDU-focus
  – Young people
  – Moderate combination of FSW, MSM and IDU
Comparing Goals Scenarios

- Asia Baseline for Goals
- Asia Goals - FSW 80% by 2015
- Asia Goals 2 - 80% MSM by 2015
- Asia Goals- IDU 40% (NSE/OST) by 2015
- Asia Goals - 20% Youth by 2015
- Asia Goals- IDU + MSM + FSW
By comparing alternatives, we can see the impact of programs and their success or their failure.
STRATEGY RESULTS CYCLE

STRATEGIC PLAN

PRIORITIZATION

Evaluate Changes in Outcomes

Select Interventions

Resource Needs, Funding

Select Principal Program Strategies

Identify Key National Outcomes & Priorities

Analyze HIV/AIDS and National Response Data

Formulate/Revise HIV/AIDS Strategy

Implementation & process monitoring (indicators, resource tracking)