U.S. DEPARTMENT OF STATE
THIRD ANNUAL CONFERENCE ON PROGRAM EVALUATION:
NEW PARADIGMS FOR EVALUATING
DIPLOMACY IN THE 21ST CENTURY
June 8-9, 2010

Health Track

PowerPoint presentation from workshop on
The President's Emergency Plan for AIDS Relief: Implementation
Science Program

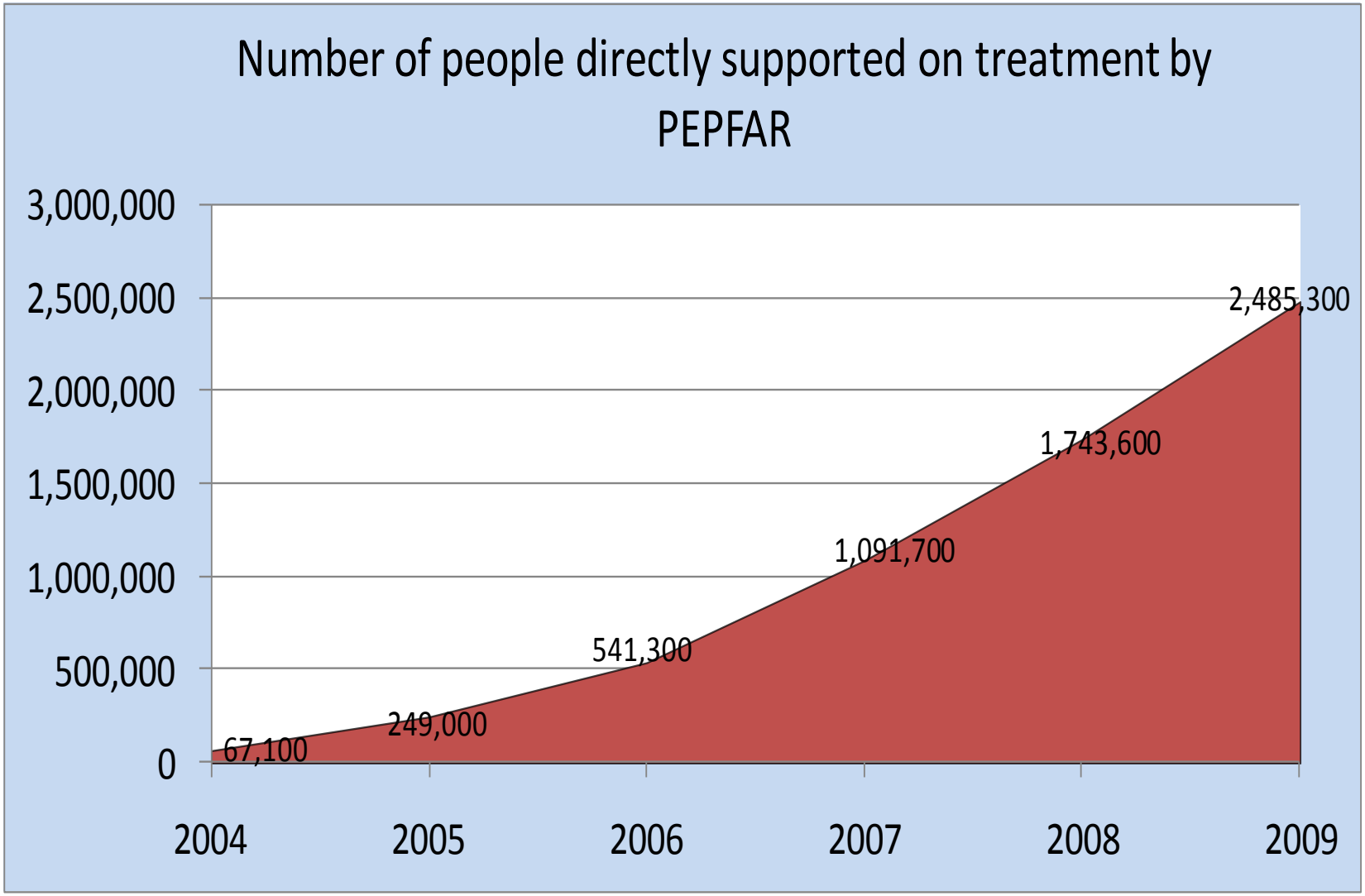
Session transcript:
http://www.state.gov/s/d/rm/rls/rm/2010/148054.htm

The President's Emergency Plan for AIDS Relief: Implementation Science Program

PEPFAR: the US Response to the Global AIDS Crisis

- **2003:** PEPFAR was launched
- **2008:** PEPFAR reauthorized through 2013
- Committed **$32 billion** through FY2010
- Interagency coordination model

PEPFAR-Supported Scale-up of Treatment



Results of PEPFAR's Support

In FY 2009, PEPFAR supported partner nations in providing:

- HIV counseling and testing for nearly **29 million** people
- Prevention of mother-to-child transmission programs have allowed nearly **340,000** babies of HIV-positive mothers to be born HIV-free
- Care and support for nearly **11 million**, including over **3.6 million** orphans and vulnerable children

Lessons from PEPFAR's First Phase

- Through basic program monitoring & evaluation and public health evaluation (PHE):
  - Benefit to both health systems and health status
  - Goals and targets help to drive programs
  - Effective prevention programs require targeted, data-driven responses
  - Efforts to build country capacity are key to sustainability
  - Importance of demonstrating the impact of every dollar

Phase II of PEPFAR Five-Year Strategy: Goals

- Promote sustainable country programs
- Strengthen partner government capacity
- Expand prevention, care, and treatment
- Integrate and coordinate with health and development programs
- Invest in innovation and operations research

Implementation Science Program (ISP)

- **Implementation Science (IS):** a scientific framework to guide health-program implementation and scale-up that focuses on effectiveness, efficiency and cost-effectiveness in order to build the evidence base necessary to inform the best approaches to achieve sustainable prevention, care and treatment programs

- **PEPFAR Implementation Science Program:** Uses IS to promote collaboration and integration between program and science to improve the ways programs are designed, implemented, and evaluated to accelerate and increase health impact.

Implementation Science Program: Objectives

- Identify critical questions generated by USG, partner governments, country PEPFAR teams, and civil society,
- Address questions that PEPFAR is uniquely poised to research,
- Provide clear answers about the efficiency, effectiveness, and impact of programs in a timely manner,
- Create linkages that will allow the use of evaluation results to identify best practices and inform programmatic decision-making,
- Assist countries in building capacity of trained personnel to engage in M&E and research,
- Focus on increasing publication of peer-reviewed articles.

The Implementation Science Evaluation Continuum

Monitoring
A continual process designed to provide **information about the progress of a program**, project, or policy to program managers and decision-makers. Involves checking the progress against pre-determined objectives and targets; tells what is happening or has happened.

Process Evaluation
An assessment conducted **during implementation** of a program to determine if the program is reaching its intended beneficiaries and providing the intended services using appropriate means.

Outcome Evaluation (Interim / Proximal)
An assessment conducted **after completion** of a program focusing on program output and outcomes to evaluate program effectiveness.

Operations Research
A process to **identify and solve problems** in program implementation and service delivery. Involves identifying a problem and testing a strategy to address the problem.

Impact Evaluation
A systematic **study of the change that can be attributed to a particular intervention**, such as a project, program, or policy. Impact evaluations typically involve the collection of baseline data for both an intervention group and a comparison or control group, as well as a second round of data collection after the intervention, sometimes even years later.

The Evaluation to Implementation Gap

- How do we:
  - Deliver interventions efficiently and effectively?
  - Transfer interventions from one setting or population to another?
  - Make informed choices between competing:
    - Interventions (effectiveness even when efficacy is plausible but unknown)?
    - Components within a combination strategy?
    - Strategies for delivery?
- ***Implementation Science*** aims to fill the gap

PEPFAR and ISP in FY10

- Implementation Science
  - Inform programs: efficiency, effectiveness
  - Impact evaluation
  - Research at PEPFAR funded sites
- PEPFAR Country-driven Mechanism (PHE)
- External Mechanism (Co-funded by the NIH Office of AIDS Research)
- Specific Research Areas
    - Nutrition
    - OVC
    - PMTCT
    - Retention of HIV+ patients in care and treatment
    - Integration of services into 1° care & co-morbidities
    - HIV prevention interventions
    - HSS / HRH
    - Gender
    - MARPs (including MSM or IDUs)

Examples of Implementation Science Questions for HIV/AIDS

- What is the most efficient way to optimize service delivery at scale?
  - What are specific strategies to improve reach, quality and uptake?
  - What are specific strategies to increase adherence and retention in a program
- What are best ways to adapt interventions to new populations and settings?
- What is the comparative effectiveness and cost effectiveness of one strategy for service provision compared to another?
- What is the impact on health systems of integration of HIV and other heath services?

Promoting Evidence-Based Prevention

- **Goal :** Support the prevention of **more than 12 million** new HIV infections
- Epidemiology- and country-driven decisions
- "Combination Prevention"
    - Biomedical
    - Behavioral
    - Structural/policy and social change
- Interventions linked to standardized indicators

ACTIVITIES:

- Mapping prevention needs and targeting activities
- Scaling up high-impact, evidence-based, mutually reinforcing combination prevention approaches.
- Addressing structural factors
- Contributing to global evidence base

Strengthening Systems of Care and Support

- **Goal:** Support care for **more than 12 million** people, including **5 million** orphans and vulnerable children.

ACTIVITIES

- Strengthen the capacity of families and communities to provide support for orphans and vulnerable children.
- Expand coverage of a quality basic package of care and support services, as well as strengthening TB/HIV programs.
- Ensure equal access to quality care and support services.

Expanding Treatment and Ensuring Quality

- **Goal:** Directly support **more than 4 million people** on treatment

ACTIVITIES:

- Scale up treatment and build national capacity.
- Assisting countries in mobilizing and coordinating resources from multiple donors.
- Identify and implement efficiencies in treatment and provide support to ensure strategic adoption of new treatment guidelines.
- Ensuring retention, adherence, program quality and monitoring drug resistance.

Developing Efficiencies in Programs

- Expanding use of costing studies and modeling
- Coordinating our response with the Global Fund
- Identifying, quantifying and disseminating potential structural and program efficiencies.
- Maximizing use of pooled procurement and use of generic ARVs (currently at 89%).

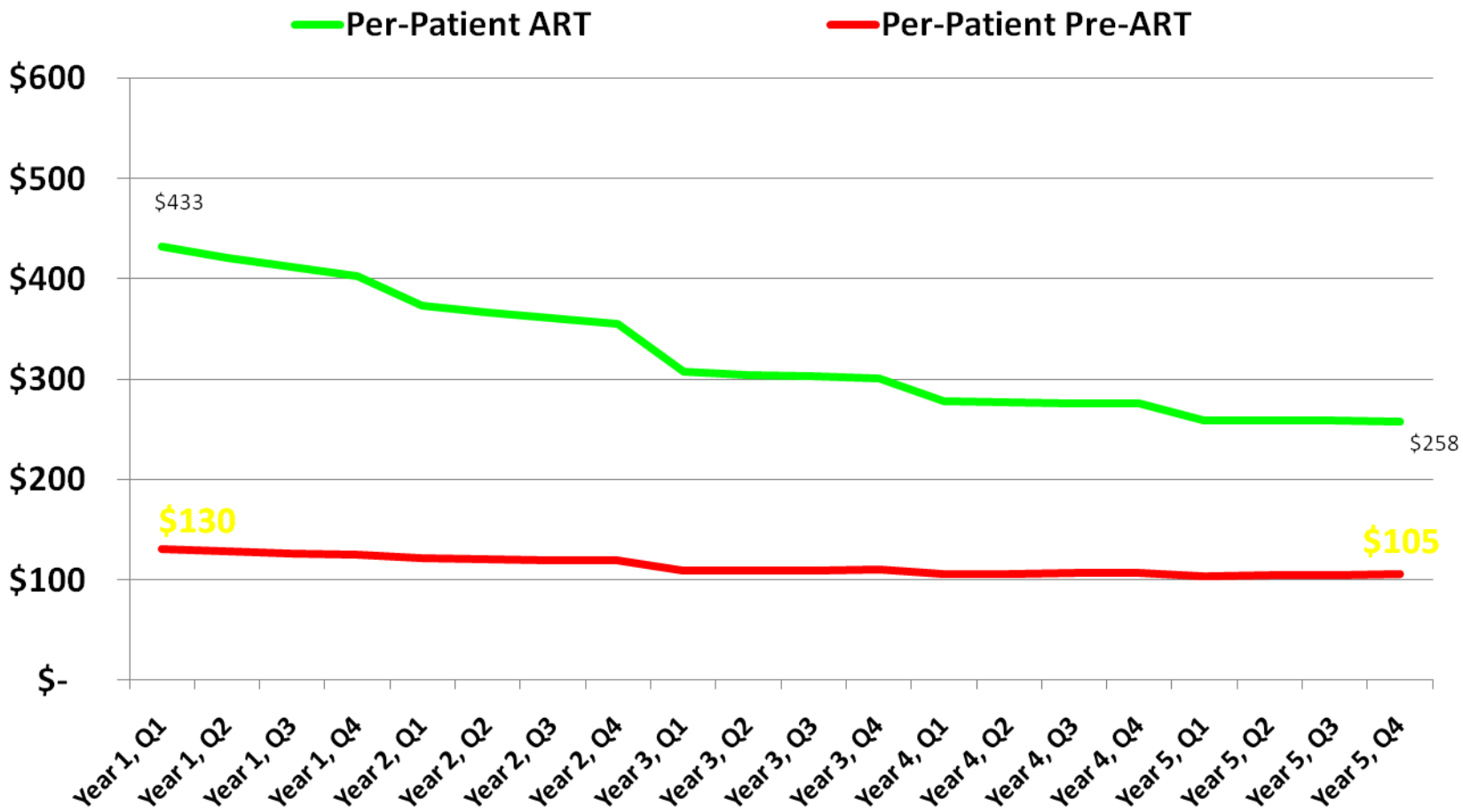
Global Uses of PEPFAR Costing Project Data and Model

- 2008 PEPFAR Reauthorization legislation
  - First-generation model developed under tight time-frame to inform scale-up and resource-needs projections
  - Utilized available data from PEPFAR ART Costing Project PHE as inputs
- Annual resource-needs planning and budget development
  - Evolving model and growing dataset utilized to inform global planning and resources needs for budget requests in FYs 2009-2011
    - Second-generation model, with enhanced capacity for examining differing program models, scale-up scenarios
    - Primary data inputs from PEPFAR ART Costing Project PHE
    - Incorporates additional inputs/updates from 2009 PEPFAR Costing Initiative, USAID and CDC technical partners' work

Mozambique Example

- During review of 2009 COP submission, concerns raised that scale-up plans and allocated resources were not aligned
- Rapid cost-projection technical assistance provided from CDC
  - Utilized just-available data from Costing PHE country study and country-level model
  - Enabled USG country team to project resource needs given scale-up plans
  - Informed modest modifications to COP and its approval
- Experience with projection effort led to extension of costing and modeling activities across program areas to inform 2010 COP planning

Per-Patient Costs (PEPFAR, Direct) over 5 years, (Mozambique)



PEPFAR Mozambique

Future Directions and Priorities for Costing and Modeling Efforts

- Increased demands for accurate estimation of resource requirements to justify budget requests
  - Mandate to extend costing activities to all program areas
  - Additional models in development
    - New prevention services model
    - Care model
    - Revised HCW model
    - Extension of ART Cost Projection Model to incorporate VCT, PMTCT on front-end
    - Patient-level disease progression model

The PEARL Study

PMTCT Effectiveness in Africa: Research and Linkages to Care and Treatment

UAB – CIDRZ (Zambia)
U. Bordeaux – PAC-CI (Cote d'Ivoire)
U. Cape Town (RSA)
EGPAF and CBCHB (Cameroon)

Elizabeth Stringer, MD, FACOG
Associate Professor of Obstetrics and Gynecology, UAB
Centre for Infectious Disease Research in Zambia (CIDRZ)

How it works

All Women Presenting for Delivery

HIV-Infected Women Only

(A) Attend Institutional Antenatal Care → (B) Be Offered HIV Test → (C) Accept HIV Test → (D) Obtain HIV Test Results → (E) Agree to ARV Prophylaxis → (F) Adhere to ARV Prophylaxis → (G) Adhere to infant ARV doses

- HIV antibodies and NVP cross placenta into fetal circulation
- Placenta and cord discarded after delivery
- If cord blood is HIV+ the mother is HIV+
- If cord blood + for NVP, mother swallowed NVP

Results

28,955 Women gave birth to live infants

4	Sample spilled/broke
76	Other Reason
37	Cord snapped/broke
46	Forgot to take sample
102	Placenta/Cord unhealthy/ too thin
124	Mother transferred
609	Completely missed

27,957 Specimens Obtained (97%)

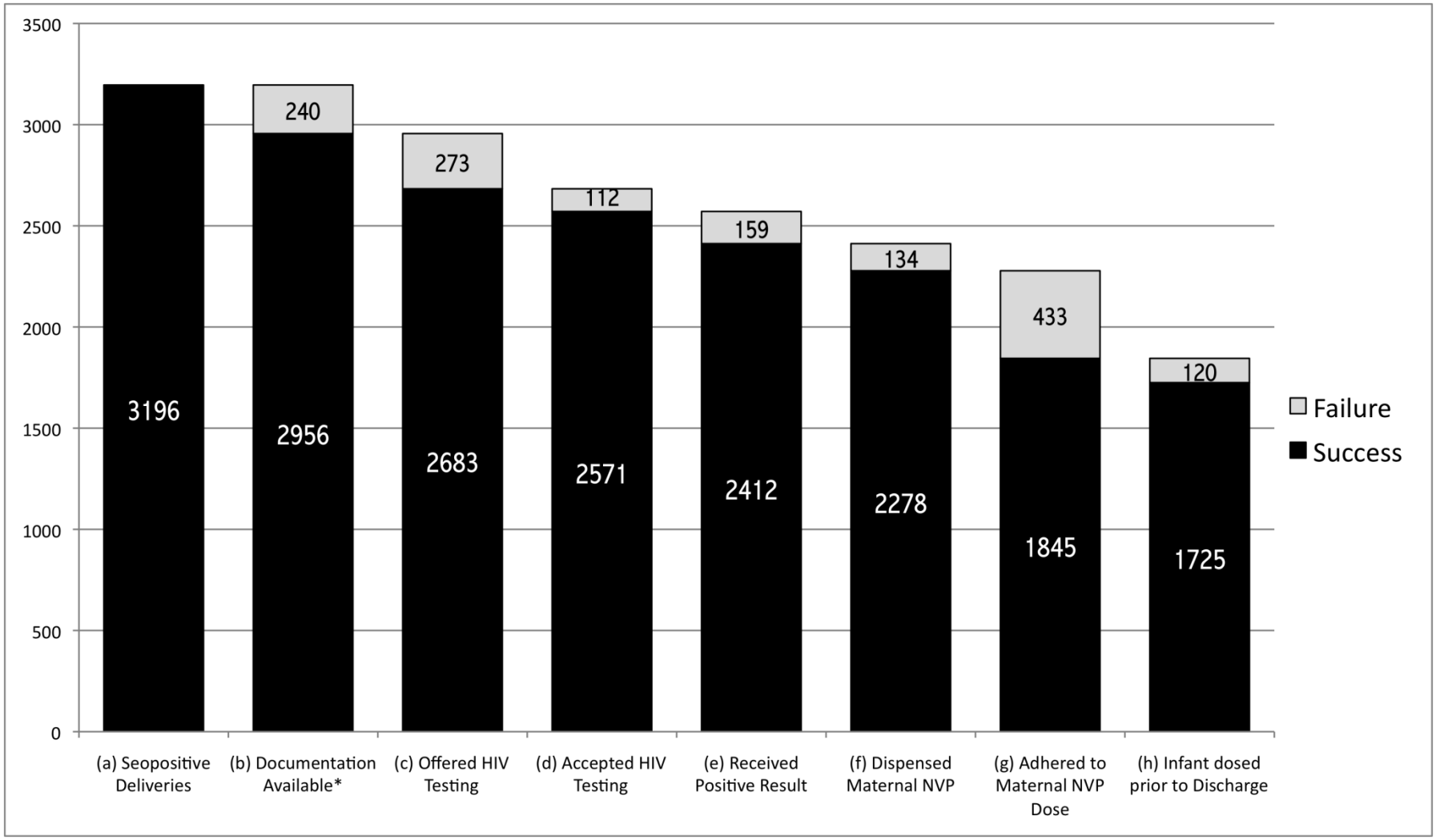
6	Blood Clotted
10	Severely Hemolysed
2	Insufficient Sample
46	Other-Unspecified

27,893 Specimens Tested (>99%)

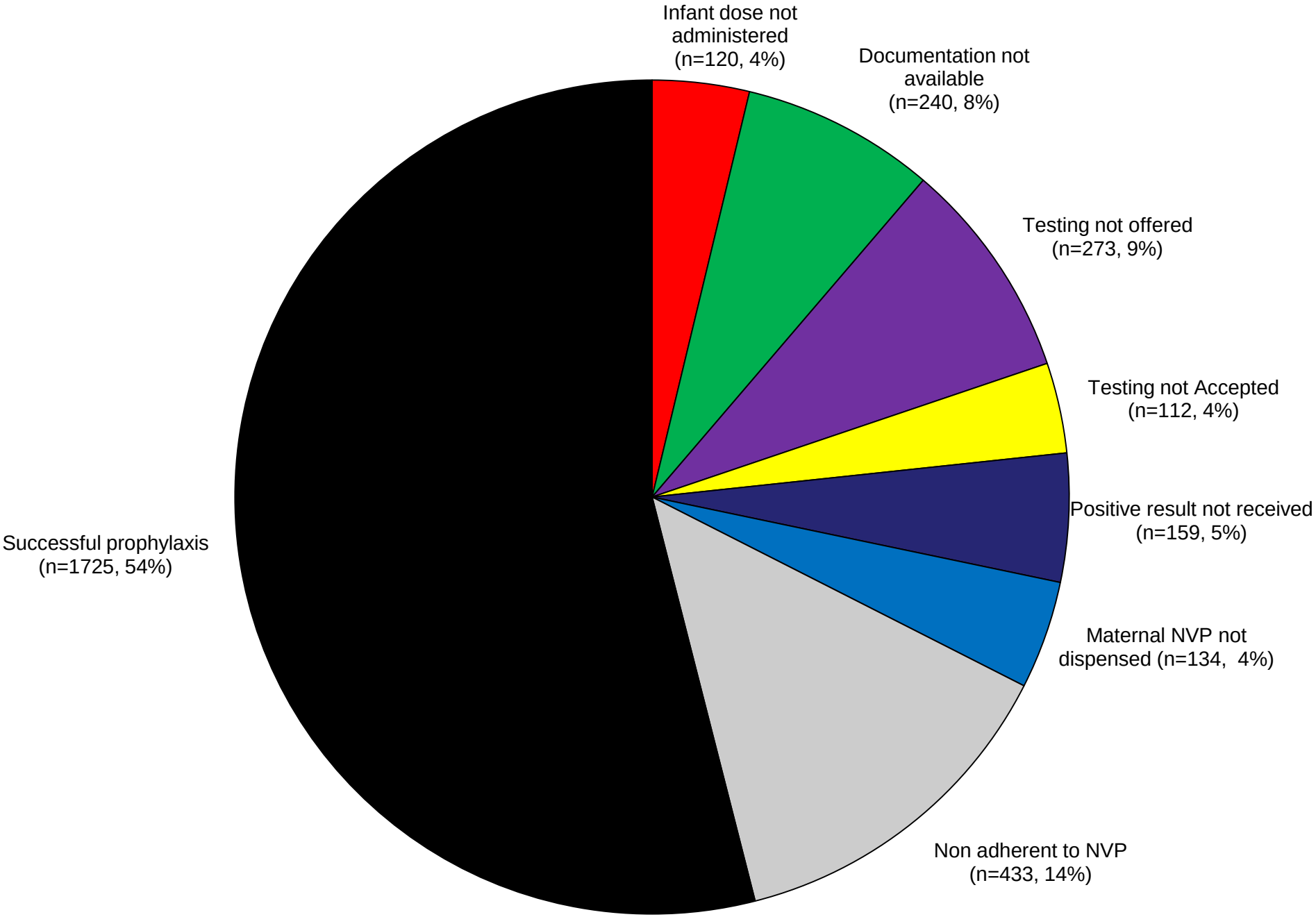
24,565	Cord blood HIV Negative
4	Cord blood HIV indeterminate

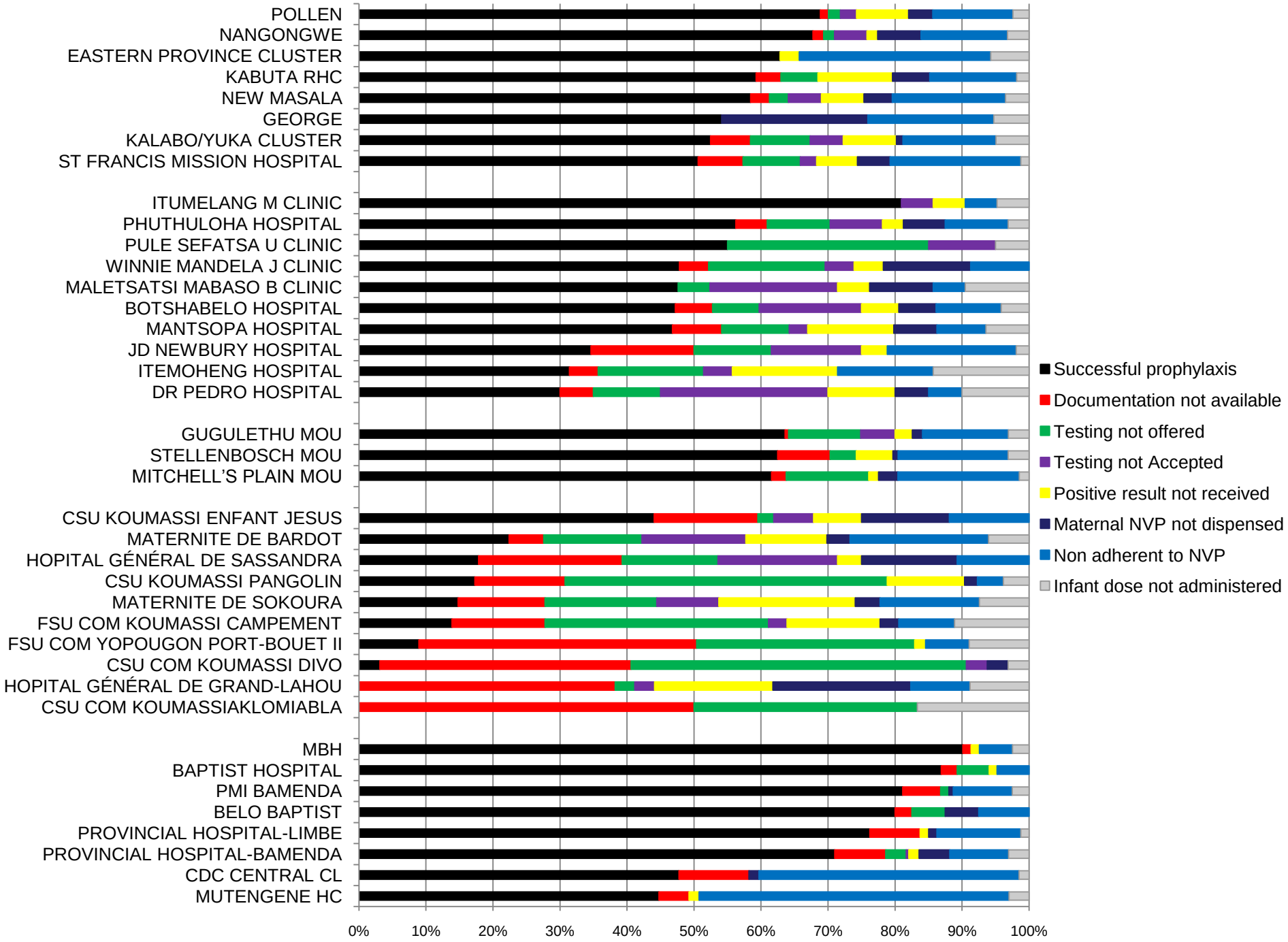
3,324 Cord blood HIV Positive (12%)

PMTCT Coverage – all Countries



(128 no NVP results)


Infant dose not administered (n=120, 4%)
Documentation not available (n=240, 8%)
Testing not offered (n=273, 9%)
Testing not Accepted (n=112, 4%)
Positive result not received (n=159, 5%)
Maternal NVP not dispensed (n=134, 4%)
Non adherent to NVP (n=433, 14%)
Successful prophylaxis (n=1725, 54%)


POLLEN
NANGONGWE
EASTERN PROVINCE CLUSTER
KABUTA RHC
NEW MASALA
GEORGE
KALABO/YUKA CLUSTER
ST FRANCIS MISSION HOSPITAL
ITUMELANG M CLINIC
PHUTHULOHA HOSPITAL
PULE SEFATSA U CLINIC
WINNIE MANDELA J CLINIC
MALETSATSI MABASO B CLINIC
BOTSHABELO HOSPITAL
MANTSOPA HOSPITAL
JD NEWBURY HOSPITAL
ITEMOHENG HOSPITAL
DR PEDRO HOSPITAL
GUGULETHU MOU
STELLENBOSCH MOU
MITCHELL'S PLAIN MOU
CSU KOUMASSI ENFANT JESUS
MATERNITE DE BARDOT
HOPITAL GÉNÉRAL DE SASSANDRA
CSU KOUMASSI PANGOLIN
MATERNITE DE SOKOURA
FSU COM KOUMASSI CAMPEMENT
FSU COM YOPOUGON PORT-BOUET II
CSU COM KOUMASSI DIVO
HOPITAL GÉNÉRAL DE GRAND-LAHOU
CSU COM KOUMASSIAKLOMIABLA
MBH
BAPTIST HOSPITAL
PMI BAMENDA
BELO BAPTIST
PROVINCIAL HOSPITAL-LIMBE
PROVINCIAL HOSPITAL-BAMENDA
CDC CENTRAL CL
MUTENGENE HC
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Successful prophylaxis
Documentation not available
Testing not offered
Testing not Accepted
Positive result not received
Maternal NVP not dispensed
Non adherent to NVP
Infant dose not administered

PEARL Study Conclusions

- In order for PMTCT to work, each mother-infant pair must negotiate a complex cascade of events
- Failures occur along each step of this pathway and should be systematically targeted
- Fixing the “coverage problem” would prevent as many infant HIV deaths as would rolling out more effective regimens – and should be taken just as seriously

PEPFAR ISP: Conclusions

- Great progress, but AIDS is still a crisis
- Expanded prevention, care and treatment activities must expand country-level capacity.
- Implementation Science should be broadly integrated into PEPFAR programmatic design, implementation, and evaluation to accelerate and increase health impact
- Global burden requires a true and shared global response

Thank You

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