

Bridging the Implementation Gap in Global Health

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Global Protests Surrounding Access to ARV's



Launching PEPFAR

“AIDS can be prevented. Anti-retroviral drugs can extend life for many years. And the cost of those drugs has dropped from \$12,000 a year to under \$300 a year -- which places a tremendous possibility within our grasp. Ladies and gentlemen, seldom has history offered a greater opportunity to do so much for so many”

January 28, 2003

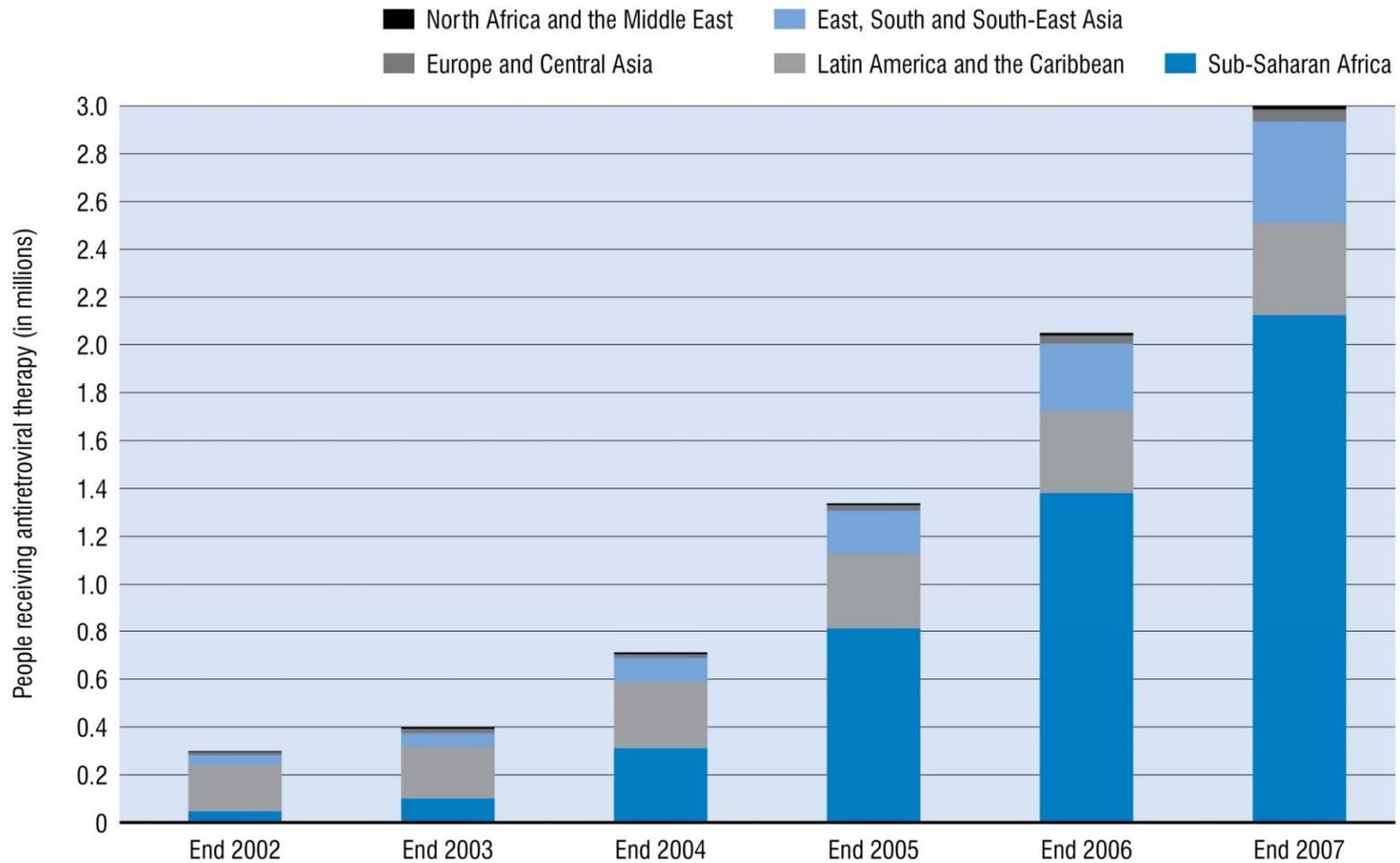
"The British government has learned that Saddam Hussein recently sought significant quantities of uranium from Africa."



TREAT
3 Million
by 2005



Number of people receiving ARV therapy in low- and middle-income countries, 2002–2007



Source: WHO, UNAIDS, UNICEF; 2008

HIV Prevention and Treatment Integration into Primary Health Care



Success story: Central Plateau, Haiti

Integrated HIV/TB programme strengthens primary health care including immunization coverage



the implementation bottleneck

- Vaccines
- Primary Health Care
- Drug Therapies
- Maternal and Child Health Care
- Basic Surgery





investment

Bill and Melinda Gates Foundation **\$6.5 B**

The Global Fund **\$8.6 B**

President's Emergency Plan for AIDS **\$15 B**

International Finance Facility **\$4 B**

Multi-Country HIV/AIDS Program **\$1.1 B**

Global Alliance **\$3 B**

Public-private partnerships **\$1.2 B**

Anti-Malaria Initiative in Africa (proposed) **\$1.2 B**

United Nations Fund **\$360 M**

Warren Buffet **\$27 B**
TOTAL \$40.7 B
TOTAL \$77.7 B



*Funds committed, or spent, by the Bill and Melinda Gates Foundation and Warren Buffett.

investment

GATES GRANTS

\$448M - new health technologies

\$413M - HIV/AIDS vaccine

\$258M - malaria vaccine

\$165M - new malaria drugs

\$124M - anti-HIV microbicides

\$115M - diarrhea/nutrition

\$106M - TB vaccines/diagnostics



the implementation bottleneck

- Vaccines
- Primary Health Care
- Drug therapies
- Maternal Child Health Care
- Basic Surgery

Gates Foundation develops:

- Microbicides and other preventive tools
- New malaria and TB drugs, diagnostics
- New combination therapies
- Drugs for neglected diseases
- >10 new vaccines

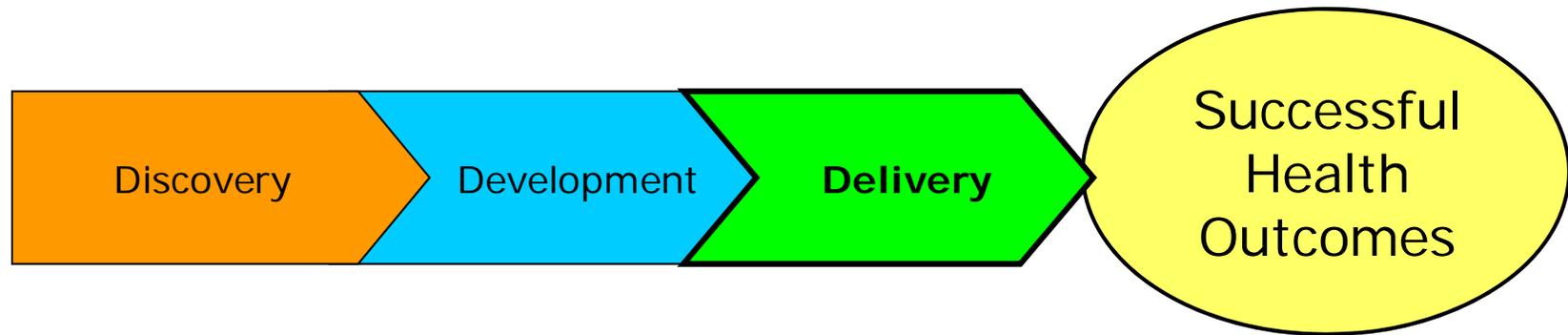


THE UNITED STATES EXPERIENCE

	Aspiration	Action
Beta blockers within 24 hours of admission with chest pain	100%	69%
Antibiotic administered within 8 hours of admission with pneumonia	100%	87%
Mammography at least every 2 years	100%	60%
Fundoscopic examination for diabetic retinopathy	100%	70%

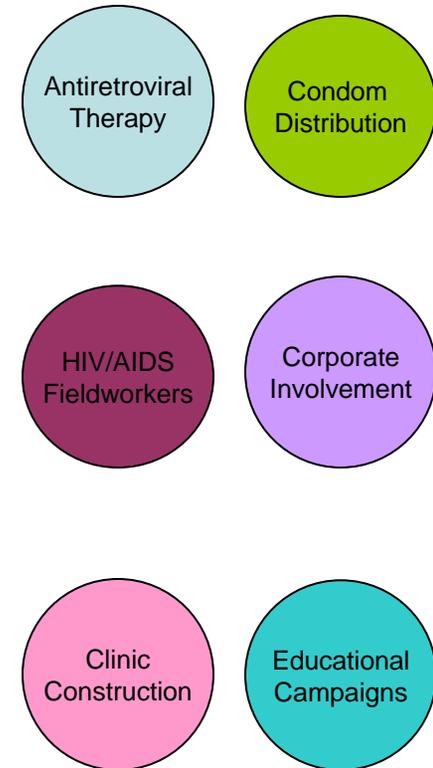
Source: Jencks et al analysis of Medicare data, JAMA, 2003

Translating scientific advances into better health outcomes



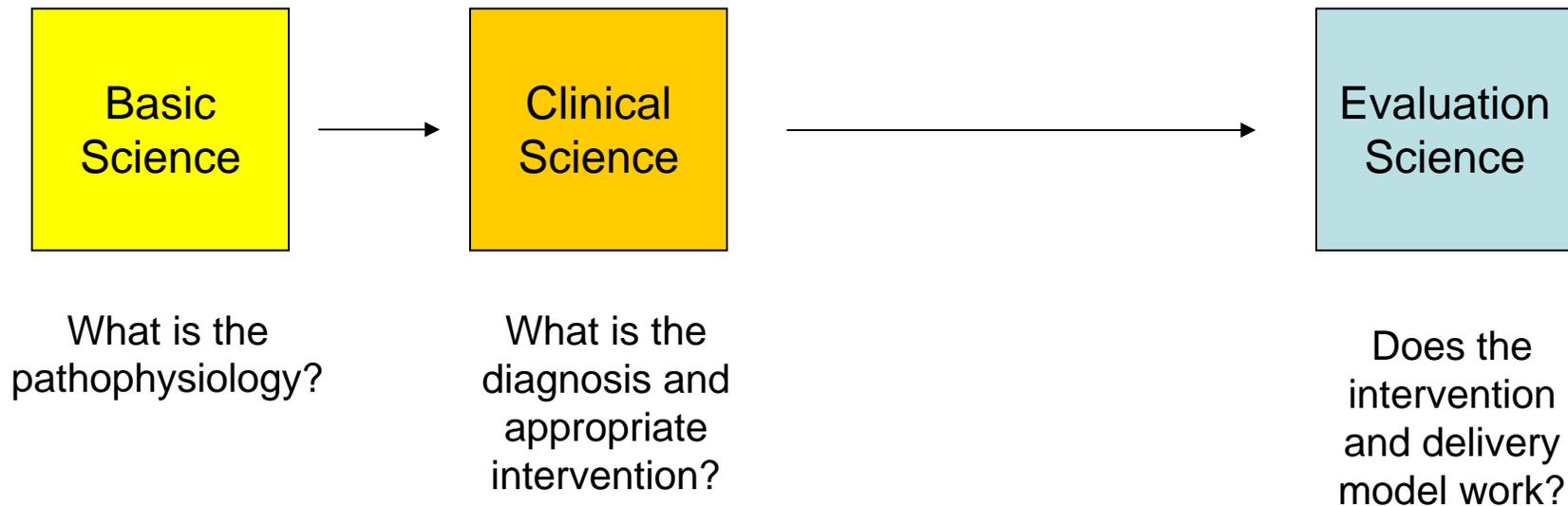
GLOBAL HEALTH “STRATEGY” TO DATE

- Countries and even districts working in isolation
- Project-based
 - Donor preference driven
 - Experimental pilots that never scale
- Competition among implementers
- Cottage industry approach
- Fragmentation of services
- Ineffective and Non-results oriented
- Absence of technology and measurement orientation
- Resources diverted for overhead and consultants

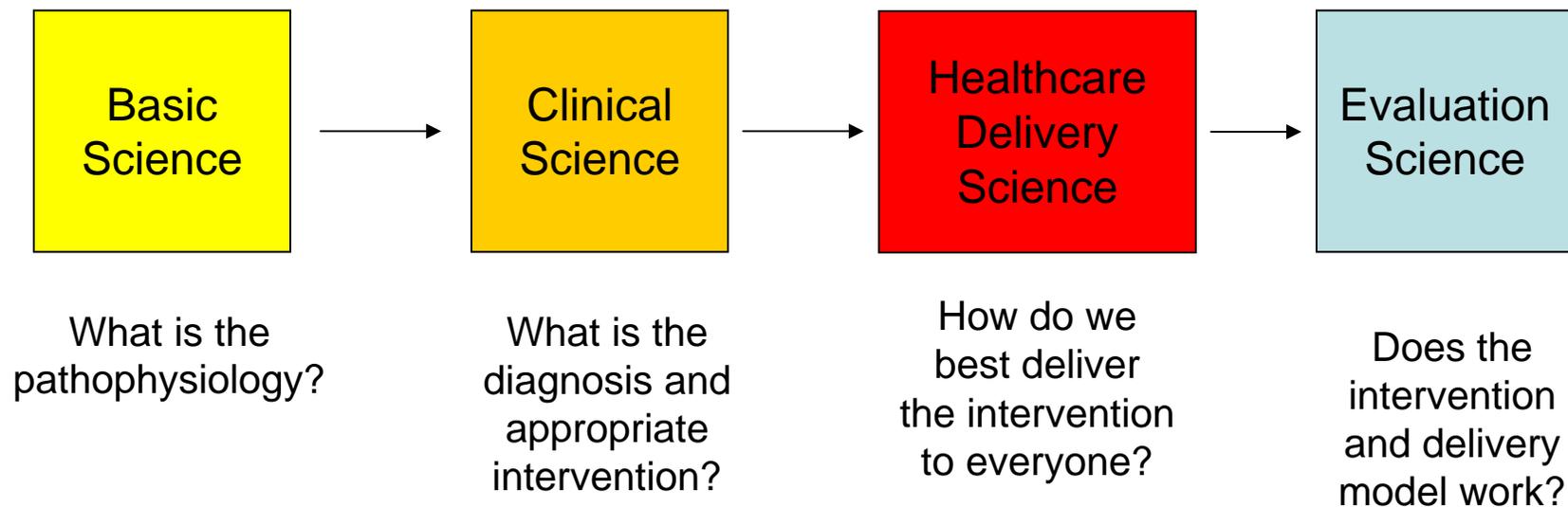


• Clear need for a better approach

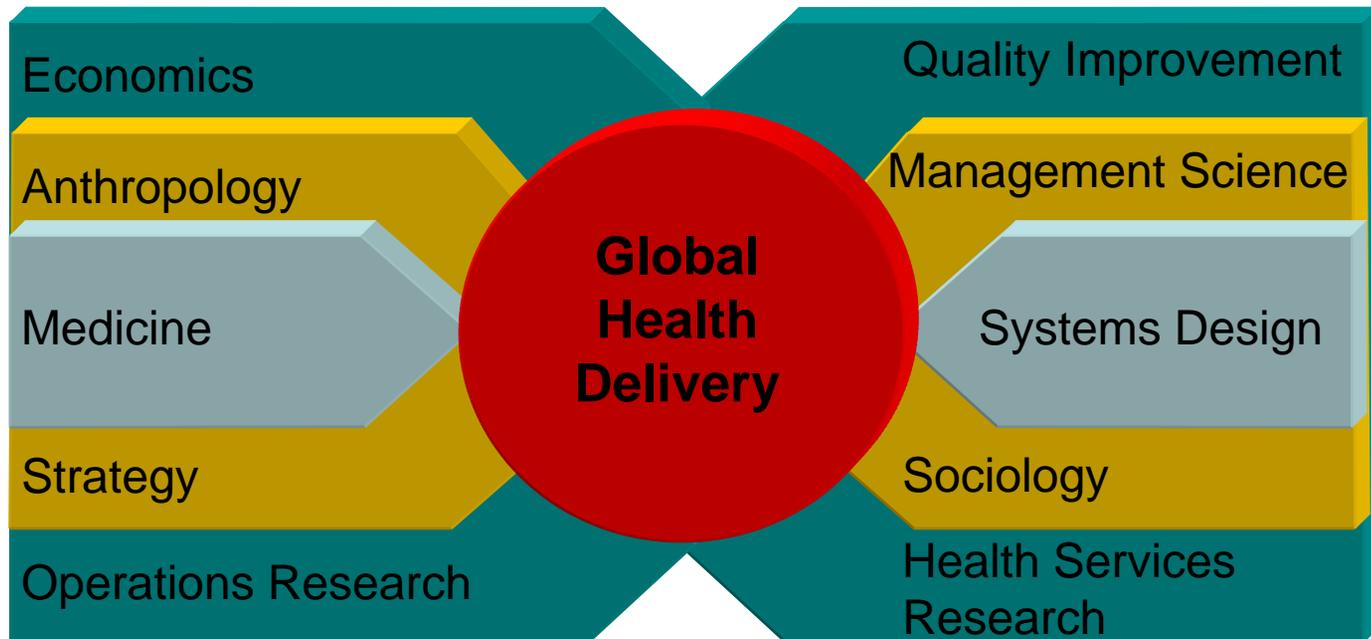
Is there a place for a new field in health education?



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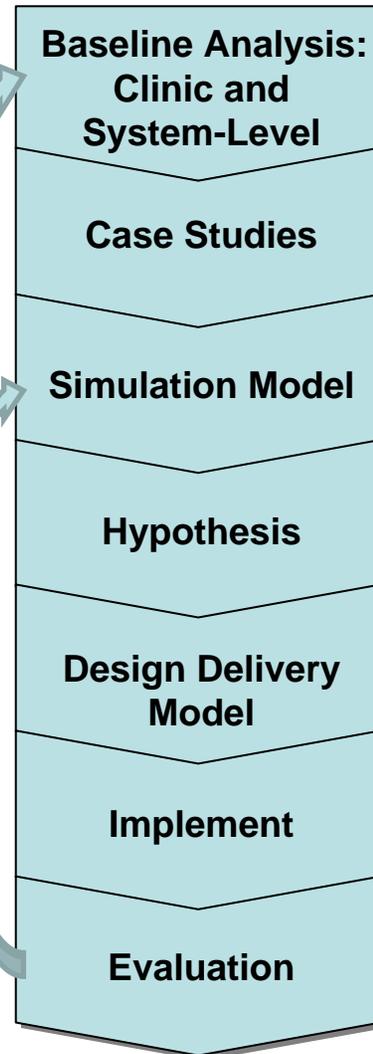
Need for an Interdisciplinary Approach



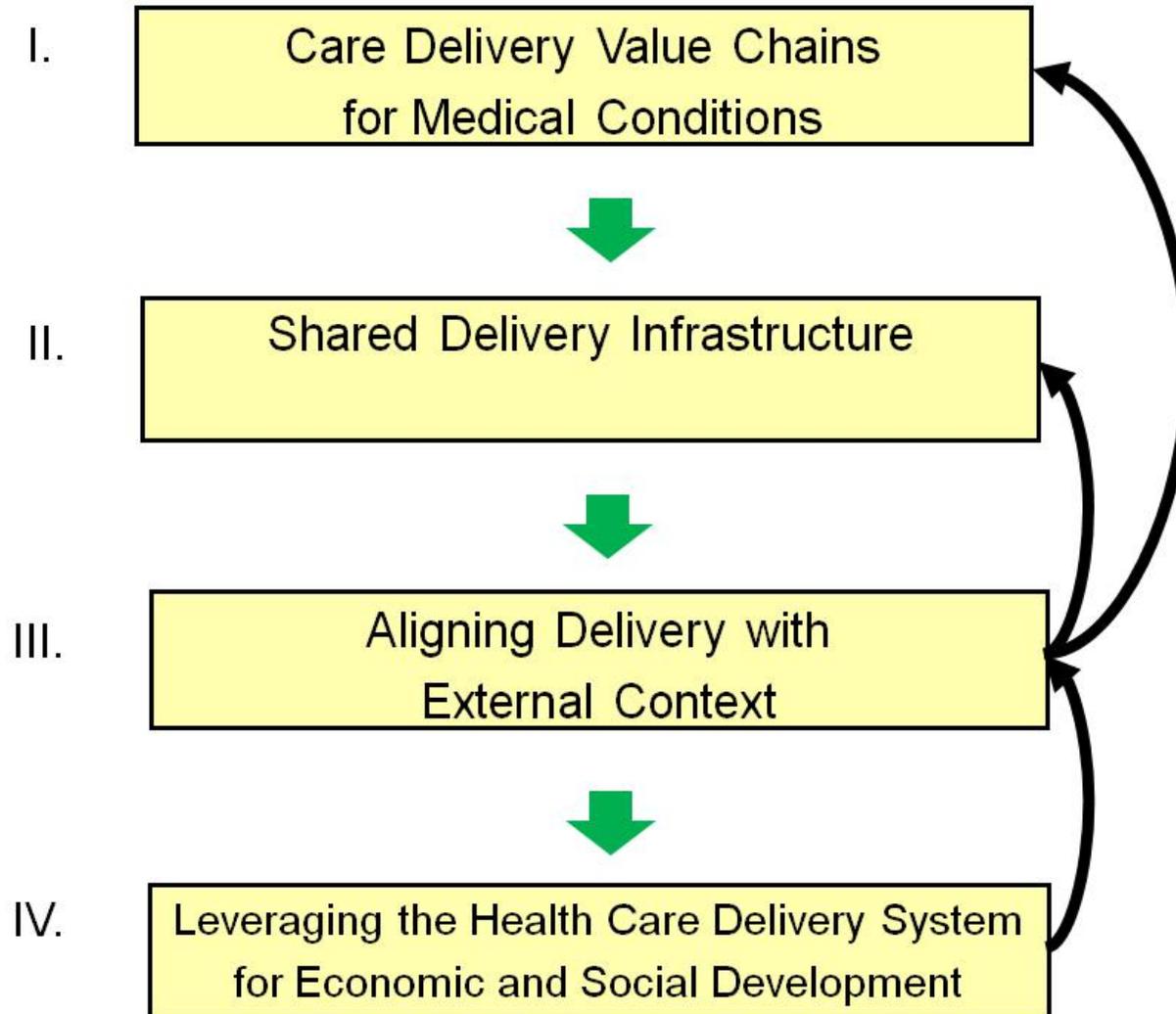
Framework for Investigating Health Systems Dynamics

Disciplines

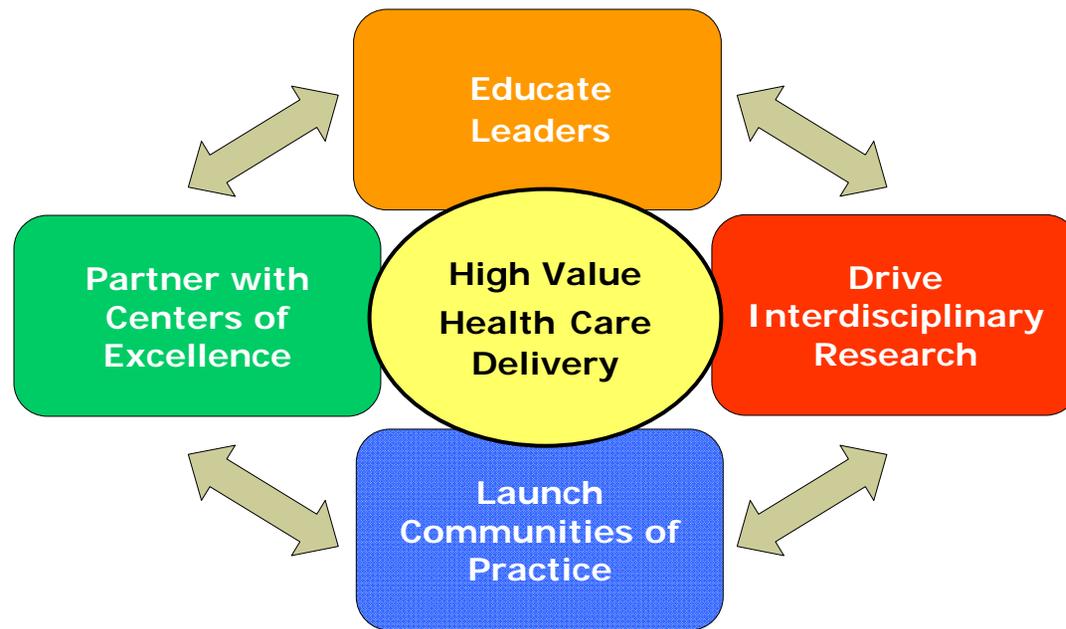
- **Epidemiology, Anthropology, Economics**
- **Strategy**
- **Systems Dynamics**
- **Operations Research**
- **System Optimization and Engineering**
- **Management Sciences**
- **Quality Improvement**



A Framework for Global Health Delivery



Global Health Delivery Project



Global Health Delivery Cases



AMPATH, Kenya



Zamne Lasante, Haiti



CIDRZ, Zambia



TASO, Uganda

Uganda

The AIDS Support Organization
(TASO)



Joint Clinical Research Center
(JCRC)



TASO

- Supported by PEPFAR
- US Partner: CDC- public health focused
- Community-based model
- Add'n Services: Counseling, Home-based follow up, Food support, Vocational training
- Results:
 - i. 2500 patients in ~18 months
 - ii. Required to attend adherence counseling sessions
 - iii. Free Medication; \$0.30 user fee
- Focuses on keeping patients on treatment



Joint Clinical Research Center

- Supported by PEPFAR
- US Partner: USAID- development focused
- Medical center-based model
- Distribution of ARVs is the key
- Results:
 - i. 19,000 patients in ~18 months
 - ii. Expanded to >30 clinics in public health facilities
 - iii. Cost of treatment: \$16/ month
 - iv. Free ARVs to ~2000 orphans and pregnant women
- Now- Expanding strategies such as home visits to address adherence
- Focuses on Financial independence



Current Research

**Delivery
Research**

WHO Positive
Synergies Initiative

**Implementation
Research**

Doris Duke Primary
Health Initiative

"The issue"

...we face a formidable gap between innovations in health (vaccines, drugs and strategies for care) and their delivery to communities in the developing world...

Madon et al. Science December 2007

WHO Positive Synergies Initiative



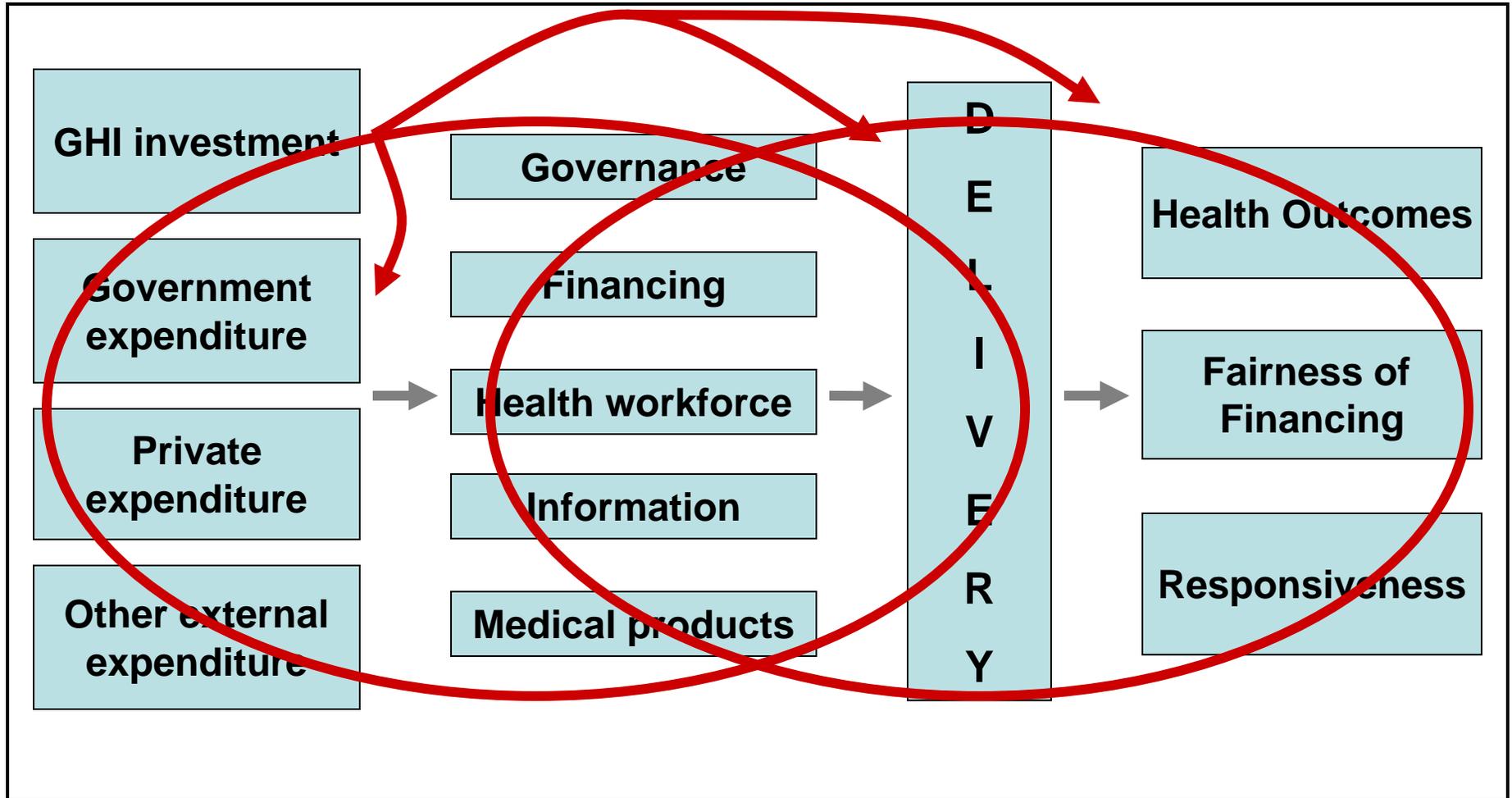
- WHO-led initiative for G8, Italy 2009
- 3 consortia: Academic, civil society, and implementers
- Fourteen academic partners from Africa, Asia, Europe, and the U.S.

Academic Consortium

Harvard University

Agence Nationale de Recherche sur le Sida
Royal College of Surgeons in Ireland
Institute of Tropical Medicine, Antwerp
George Washington University
Kenyatta University
University of Yaoundé
Public Health Foundation of India
Dakar University Teaching Hospital
University of Western Cape
The AIDS Support Organization
Center for Global Development
Global Fund/World Bank
University of Pretoria
Heartfile, Pakistan

Pathways to Impact



Levels of Analysis

Identify relationships

Understand relationships

Understand the impact

WHO Positive Synergies

Research Questions

How do GHI-funded programmes interact with health systems in varied country contexts?



WHO Positive Synergies

Methods

- Qualitative and quantitative case studies
- Key informants:

<u>Institutions</u>
National AIDS Control Council
WHO
PEPFAR
Global Fund for AIDS, Malaria, and Tuberculosis
USAID
CDC
UNAIDS
AAR Private Healthcare
National Newspaper
Ministry of Health
Treasury Department
Family Health International
Aidspan GFATM watchdog
Ministry of Public Health and Sanitation
AIDS NGO Consortium



WHO Positive Synergies

Research Questions

How do different health system designs and specific implementation strategies influence the coverage of targeted and non-targeted interventions?



WHO Positive Synergies

Methods

Facility Assessment Tool



Prior to GHI_date:

PLEASE FILL OUT THE FOLLOWING TABLE FOR PAID HEALTHCARE WORKERS IN THE PERIOD BEFORE THE GLOBAL HEALTH INITIATIVE BEGAN. WHEN EXACT NUMBERS ARE UNKNOWN PLEASE ESTIMATE.

HUMAN RESOURCES on site (salaried/wages only – not volunteers)	Total Number	Estimated Full time equivalent for GHI in question	Full time equivalent total	Comment
Surgeon/Obstetrician				
Medical Doctor (specialist)				
Medical Doctor (non-specialist/primary care)				
Non-doctor clinicians (clinical officers/physician assistant)				
Nurse (> 4 yrs training) Mid-wife/Public Health nurse etc				
Nurses (4 years)				
Nurses (3 years)				
Auxiliary nurses (≥ 1 year)				
Auxiliary nurses (≤ 1 year)				
Laboratory technicians (degree)				
Laboratory technician assistant (non-degree)				
Pharmacists (degree)				
Pharmacist assistant (non-degree)				
Counselor (degree)				
Counselor (non-degree)				
Community Health Workers (based in the community, but affiliated with health center)				
Lay providers (if not included above)*				
Other				
Other				
Other				

Currently:

PLEASE FILL OUT THE FOLLOWING TABLE FOR CURRENT PAID HEALTHCARE WORKERS. WHEN EXACT NUMBERS ARE UNKNOWN PLEASE ESTIMATE.

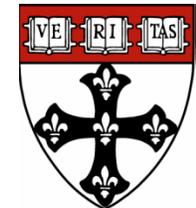
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Pharmacist assistant (non-degree)				
Counselor (degree)				
Counselor (non-degree)				
Community Health Workers (based in the community, but affiliated with health center)				
Lay providers (if not included above)*				
Other				
Other				
Other				

*Members of the health team may have specific training, but not a formal education for the work.

Doris Duke African Health Initiative



- Funds implementation, evaluation and operations research of innovative approaches to improve comprehensive primary care in Africa
- Consortium of PIH, BWH, HMS and HSPH awarded planning grant to develop 5 year implementation grant
 - 3 countries (Rwanda, Lesotho, Malawi)



Doris Duke Primary Health Initiative

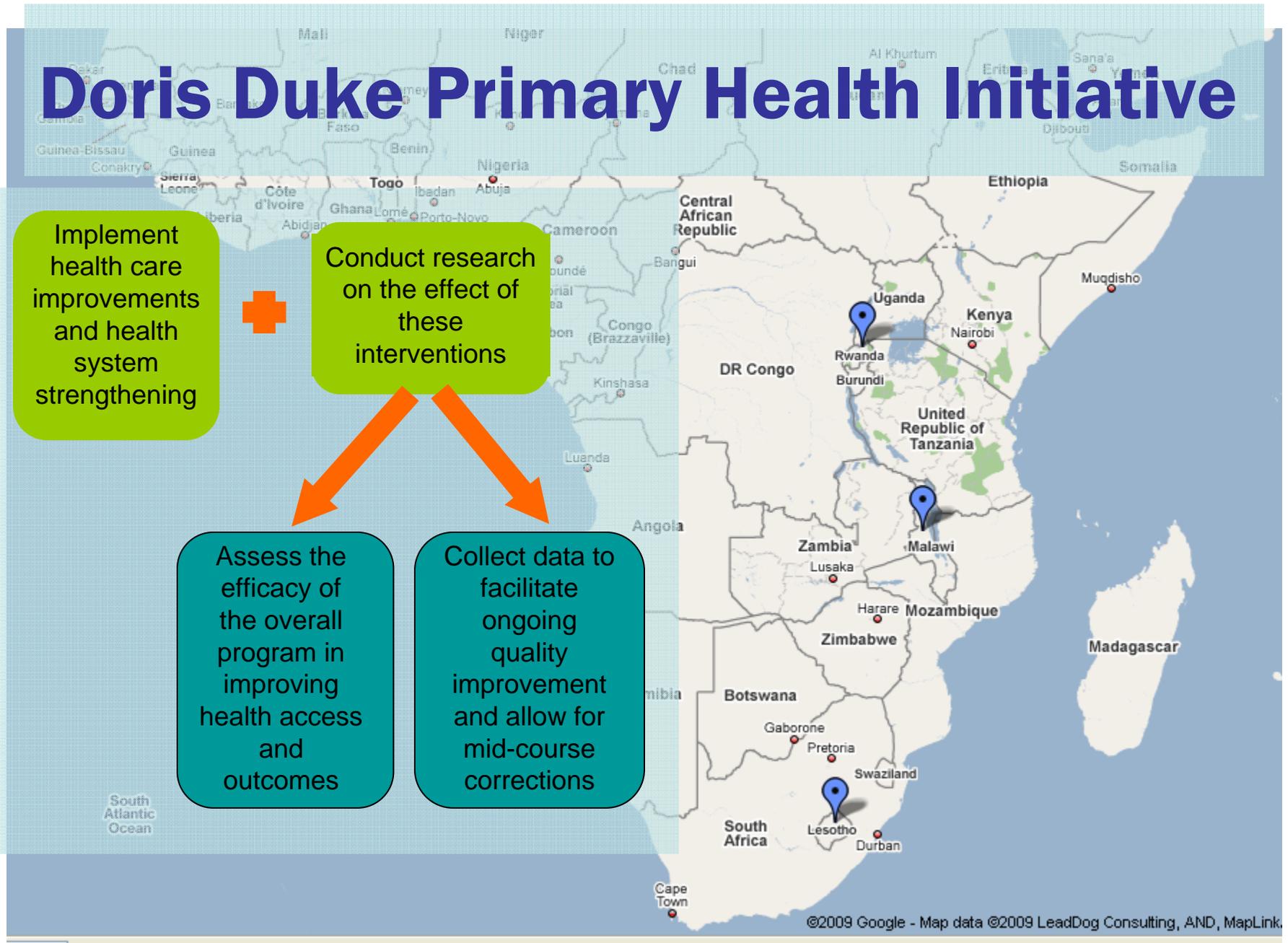
Implement health care improvements and health system strengthening



Conduct research on the effect of these interventions

Assess the efficacy of the overall program in improving health access and outcomes

Collect data to facilitate ongoing quality improvement and allow for mid-course corrections



What is to be done?

- Can these efforts help to build the new field of global health delivery science?
 - Can we move beyond the RCT?
 - Can we begin to illuminate the black box of delivery?
 - Can we build “positive synergies” and improve outcomes?
- Where are the opportunities?
 - Positive Synergies, Doris Duke
 - Gates – "Delivery"
 - IHP – Common Monitoring and Evaluation
 - **PEPFAR, PEPFAR, PEPFAR**



“ To create and nurture a community of the best people committed to leadership in alleviating human suffering caused by disease.”

HARVARD MEDICAL SCHOOL
MISSION STATEMENT





**YES,
WE
CAN.**