Translational Research and Advocacy: New Paradigms for Equity

Joia S. Mukherjee, MD, MPH
Medical Director, Partners In Health,
Associate Professor, Harvard Medical School
Earth at Night
More information available at:

Image courtesy of NASA. Credit: C. Mayhew & R. Simmon (NASA/GSFC), NOAA/ NGDC, DMSP Digital Archive
Global Prevalence of AIDS

Adult prevalence

- 15.0% – 36.0%
- 5.0% – 15.0%
- 1.0% – 5.0%
- 0.5% – 1.0%
- 0.1% – 0.5%
- 0.0% – 0.1%
- not available

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PIH Time Line

1987-1994
- Primary healthcare in Haiti.
- Treating conditions considered too complex for in poor settings.
- Developing a model for community-based care.
- Advocacy for the poor in Latin America.

1994-2001
- Treating conditions in poor settings.
- MDR-TB TB in Peru and Haiti, Russia. ART in Haiti.
- Advocating for pricing and drug development for the poor.

2001-2004
- Expansion and development of the model of care HIV and TB.
- Working with the public sector. Expansion of Haiti HIV model.
- Advocating for new sources of funding and public sector support.

2005-
- Disseminating the PIH model to Africa.
- Health systems Strengthening.
- Advocating for food security and health care workers.
PIH Socios en Salud project 1999

Courtesy of Partners in Health. Used with permission.
Pott’s disease in 2.5 year old patient presenting with paresis

X-ray image showing cross-section of back removed due to copyright restrictions.
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Tackling HIV in Resource Poor Countries

Mukherjee, JS et al. BMJ 327 (8), 2003
Scope and Scale

It's too hard...........2000

It's 17 to 25 pills a day...

Every two hours....

And you have to change the cocktail ...every three or four months , or you can die from the toxicity of the drugs.

'Many people in Africa have never seen a clock or a watch their entire lives. And if you say, one o'clock in the afternoon, they do not know what you are talking about.'
Feasibility of ART in Resource Poor Settings

- Over 1500 HIV-positive people followed
- 60 patients treated with DOT-HAART
- Each DOT-HAART patient has an accompagnateur.
- Accompagnateurs observe ingestion of the therapy at least once a day.
- They all gained weight

Farmer P, Leandre F, Mukherjee JS et al. DOT-HAART: Supervised Therapy for Advanced HIV Disease, Lancet 2001; 358
Accompagnateurs

• Selected by the patient needing treatment
• Visit patients at home once or twice daily; each accompagnateur follows an average of 4 patients
• Monthly salary is 300 Haitian dollars ($38 American)
• Supervised by the head nurse, who regularly meets with each patient and accompagnateur to discuss medication adherence

Mukherjee JS, Eustache E. Community health workers as a cornerstone for integrating HIV and primary healthcare. AIDS Care. 2007;19 Suppl 1:73-82
**Full price, proprietary**
$10,000 USD/pt/yr

**Concessional pricing, proprietary**
$1600 USD/pt/yr

**Generic & Proprietary with WHO preapproval**
$800 USD/pt/yr

**IDA quality controlled**
$300 USD/pt/yr

**Clinton Foundation**
$150 USD/pt/yr
Basing treatment on rights rather than ability to pay: 3 by 5

Images removed due to copyright restrictions.

Mukherjee, JS The Lancet 363, 2004
Integrated HIV Prevention and Care Strengthens Primary Health Care

Walton, D et al. J.Pub Health Pol 25( 2), 2004
AIDS treatment siphons resources from primary care........

Images removed due to copyright restrictions.
The HIV-EMR System

Passive Transfer of Maternal Antibody

Mother 1

Baby 1:
- Has received HIV antibody ONLY
- Does not have HIV infection
- Will have a negative viral test
- Will have positive antibody test until 18m
- 70-80%

Mother 2

Baby 2:
- Has received virus and mother's antibody
- Has a positive viral test
- Has a positive antibody test
- Does have HIV infection and will go on
to develop symptoms of illness over time
- 20-30%

Birth
6 months
12 months
18 months

- Negative antibody test
- Sero Reverter
- Baby does not and never
did have HIV infection

Birth
6 months
12 months
18 months

- Positive antibody test
- HIV Culture/PCR Positive
- HIV infected. Over time will
develop symptoms of disease

Thanks to I-TECH

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Community Partnership

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Mukherjee, PIH photo
Revitalizing Hospitals

Courtesy of Partners in Health. Used with permission.

PIH photo
• Governments (not NGOs) can ensure the right to services.
• Building the public health infrastructure and education system (not private clinics and schools) will best serve the public and allow the right to health care and education.
• Integrated HIV programs can increase uptake of vaccinations, family planning, and improve primary health care in the public sector

Mukherjee, PIH photo
Village Health Workers and Household Chart

Image removed due to copyright restrictions.
### SECTION 2
**LIST ANY WOMAN WHO IS PREGNANT**

<table>
<thead>
<tr>
<th>Name</th>
<th>F/UAC</th>
<th>R/D Program</th>
<th>Using</th>
<th>HIV test</th>
<th>ANC Visit</th>
<th>Delivery Date</th>
<th>Delivery Mother</th>
<th>Birth and Mother</th>
<th>Informed Consent</th>
<th>Referred to H/C</th>
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### SECTION 3
**LIST ANYONE WHO HAS BEEN COUGHING FOR MORE THAN TWO WEEKS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Referred to Health center</th>
<th>Improved</th>
<th>Evaluated at HC</th>
<th>Complete all follow up visits</th>
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### SECTION 4
**LIST ANYONE WHO IS REACTIVE**

<table>
<thead>
<tr>
<th>Name</th>
<th>Children Tested</th>
<th>Partner Tested</th>
<th>Using bed net</th>
<th>On CPT</th>
<th>Enrolled Pre ART</th>
<th>On ARVs</th>
<th>Referred to Clinic</th>
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### SECTION 5
**LIST ANY CHILD WHO IS LESS THAN FIVE YEARS OLD**

<table>
<thead>
<tr>
<th>Name</th>
<th>Under 5 year</th>
<th>BCG</th>
<th>Diphtheria</th>
<th>Pertussis</th>
<th>Tetanus</th>
<th>Measles</th>
<th>Polio</th>
<th>Using net</th>
<th>F/UAC</th>
<th>Data enrolled to Food Program</th>
<th>Data Food Program Completed</th>
<th>Referred to H/C</th>
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Interventions with Proven Effect on Maternal Survival

Village Health Workers’ Integration into Malawian Health System

**Patient**

**Health Centre**
- **Health Surveillance Agent**
  - Average 10-20 VHW
- **Village Health Worker**
  - Average 4 to 5 households

**Village Health Worker**
- Daily accompaniment for HIV TB
- Monthly for pregnant woman, family surveillance
- Twice monthly for meds + training, 0-4 hours walk

**HIV or TB Patient**
- Once monthly for consult
- Once monthly for consult with VHW and reporting to EHO

**HSA**

**Pregnant Women**

**EHO**

**Clinician**
Maternal Mortality per 100,000 Live Births

Source PAHO 2002
Matope ANC Attendance

Total ANC visits by month

Number of ANC Visits

Dec-08  Feb-09  Mar-09  May-09  Jul-09  Aug-09  Oct-09
Mukherjee, PIH photo

Courtesy of Partners in Health. Used with permission.
Sources:
For cause-specific mortality: EIP/WHO.
Courtesy of Partners in Health. Used with permission.
PIH photo

Courtesy of Partners in Health. Used with permission.
PIH photo

Courtesy of Partners in Health. Used with permission.
2001: HIV positive orphan, sentenced to death from AIDS

2005: 19 years old, Mukherjee, PIH photo
Graduated first in his class...