Social Innovation and Ebola: Addressing Global Health Inequities

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Chief of Ebola Response
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“Any city, however small, is in fact divided into two, one the city of the poor, the other of the rich; these are at war with one another.”—Plato

— Greek philosopher (427-347 B.C.)
One week in June 2012
Six days later

- 2 Ambulances with skilled paramedics
- One of World’s best hospitals
  - Specialty trained clinicians
  - Supplies, medications, private birthing room
  - Neonatal ICU if needed
Dalitso and Bowie
Dalitso and Bowie

• Dalitso is 21 times more likely to die as a result of childbirth
• If Dalitso has a child, her child will be 10 times less likely to survive to her first birthday
• Nearly 20 times less likely to reach the critical age of 5
• Life Expectancy 51 Dalitso vs 82 for Bowie
One World?

Malawi

- Maternal Mortality
  - 460 deaths/100,000 live births (2010) country
  - comparison to the world: 24

- Infant Mortality
  - total: 76.98 deaths/1,000 live births country
  - comparison to the world: 10

US

- Maternal Mortality
  - 21 deaths/100,000 live births (2010)
  - country comparison to the world: 137

- Infant Mortality
  - total: 5.9 deaths/1,000 live births
  - country comparison to the world: 174
• Globally 3 million child deaths every year are associated with malnutrition.
• Malnutrition is pervasive throughout Malawi—nearly half of all children under 5 years old are “stunted”.
“Inequity that is _nobody’s fault_, that is just _the way things are_, that we live with because we cannot or will not or do not know how to address the conditions that create unequal outcomes for rich and poor.”

Paul Farmer
Socialized for Scarcity

• If you have Breast Cancer and are born in rural Rwanda— you will probably die.
• It is normal for women to die during childbirth in Lesotho.
• Street violence is normal in Mattapan.
• Children die of malnutrition in Haiti.
• We can’t help, we have problems here at home.
Cancer Treatment

- Almost 80 percent of the global cancer burden occurs in low- and middle-income nations, yet those countries claim only 5 percent of the global spending on cancer.
Human Rights Approach to Health

• A human rights approach to health is critical to address growing global health inequalities.
  

• “Everyone has the right to a standard of living adequate for the health and wellbeing…including food, clothing, housing and medical care and necessary social services”
  
“The idea that some lives matter less is the root of all that's wrong with the world.”

— DR. PAUL FARMER
Global Health Challenges

• Refugee crisis
• TB, HIV/AIDS, Malaria
• Hepatitis C
• Malnutrition
• Non-communicable diseases
  – Mental health
  – Cancer
  – Cardiac Disease
  – Diabetes
• Current Outbreaks
  – Ebola, MERS-CoV, Avian Influenza A
Health is more than just biology

“the social determinants of health are the economic and social conditions that influence the health of individuals, communities and jurisdictions as a whole.”
(Raphael Dennis 2004)
Global Health Delivery = Social Innovation

Social innovation is a growing field that combines the passion and purpose of a social or environmental mission with the rigor and accountability of a market-based approach to enterprise design, financing, and operations.

https://carsey.unh.edu/csif
Universal Health Coverage

• Universal Health Coverage exists when all people receive the quality health services they need without suffering financial hardship.

• UHC combines two key elements, the first relating to people’s use of the health services they need and the second to the economic consequences of doing so.
“User fees for health care were put forward as a way to recover costs and discourage the excessive use of health services and the over-consumption of care. This did not happen. Instead, user fees punished the poor.”

— Dr. Margaret Chan, Director-General, World Health Organization, speech addressed at the 23rd forum on global issues, 2009.
“The poor are a by-product of the system in which we live and for which we are responsible… Hence the poverty of the poor is not a call to generous relief action, but a demand that we go and build a different kind of social order.”

Gustavo Gutiérrez, The Power of the Poor in History
we go
we make **house calls**
we build **health systems**
we **stay**
What We Do

PIH works with impoverished communities to:

• Provide high quality health care
• Address the root causes of illness
• Build local capacity and train health care providers
• Advance research and scholarship in global health
• Advocate for global policy change

Service, Training, Advocacy, Research (STAR)
The five principles of Partners In Health’s model of community-based care...
1. Access to primary health care

A strong foundation of primary care is critical to successfully treating specific diseases, such as AIDS. Therefore, PIH integrates infectious disease interventions within a wide range of basic health and social services.
2. Free health care and education for the poor

Because both health and education are fundamental routes to development, it is counterproductive to charge user fees for health care and education to those who need these services most and can afford them least.
Health programs should involve community members at all levels of assessment, design, implementation, and evaluation. PIH doesn’t tell the communities we serve what they need—they tell
4. Addressing basic social and economic needs

Fighting disease in impoverished settings also means fighting the poverty at the root of poor health. Through community partners, PIH works to improve access to food, shelter, clean water, sanitation, education, and economic opportunities.
5. Serving the poor through the public sector

A vital public sector is the best way to bring health care to the poor. Rather than establish parallel systems, PIH works to strengthen and complement existing public health infrastructure.
“Education is the most powerful weapon which you can use to change the world.” – Nelson Mandela
Program on Social and Economic Rights (POSER)

Before: Dirt floors, walls made of tree bark and mud, leaky roofs, damp rooms, structurally unstable.
After: We build houses with tin roofs, cement floors, and walls made of cinder blocks, timber, rocks and/or cement.
Malnutrition meets Income Generation
Giving medicines without food is like washing your hands and drying them in the dirt.

– Haitian words of wisdom
Health Facilities in Lesotho

Lesotho
MMRP Key Elements

- Performance-based stipends
- Comprehensive Pre-natal care
- Mother’s waiting houses
- New baby care packages
- Protocols for referral
- HIV prevention and treatment (ART or PMTCT prophylaxis)
Rwanda
• Over the last decade in Rwanda, deaths from HIV, TB, and malaria dropped by 80 percent, maternal mortality dropped by 60 percent, life expectancy doubled -- all at an average health care cost of $55 per person per year.

• Rwanda retains 92 percent of patients in HIV care -- compared to 50 percent in the U.S.
History of Ebola

• 1976: 318 cases of acute viral hemorrhagic fever occurred in northern Zaire.
  ▪ 280 deaths, 38 survivors
  ▪ The outbreak lasted 6 weeks
• 25 outbreaks between 1976 and 2013
  ▪ Death toll of all previous outbreaks <2000
  ▪ July, 2015: 25,514 probable, suspected and laboratory-confirmed cases: >11,220 deaths in Guinea, Liberia and Sierra Leone
  ▪ 874 Health care workers infected, 509 died
Nowa Paye, 9, is taken to an ambulance after showing signs of the ebola infection in the village of Freeman Reserve, about 30 miles north of Monrovia, Liberia Photo: AP Photo/Jerome Delay
In the moment of crisis, the wise build bridges and foolish build dams. Nigerian Proverb
You're alive. Do something. The directive in life, the moral imperative was so uncomplicated. It could be expressed in single words, not complete sentences. It sounded like this: Look. Listen. Choose. Act.

Barbara Hall
When does it matter to the world?

- The first Ebola patient to be diagnosed in the U.S. died Wednesday (10/8/14).
- Three days earlier, government health officials in Sierra Leone reported 121 Ebola deaths in a single day.
- But Western media made little mention of the latter.

Emily Thomas Huffington Post

http://www.huffingtonpost.com/2014/10/08/ebola-illustration-andre-carrilho_n_5955192.html
Ebola outbreaks
To June 29th 2015
Number of people:
- infected
  - of whom:
    - dead

3,729

2,482

13,119

4,807

10,667

3,932

SIERRA LEONE

GUINEA

LIBERIA

208

NIGERIA*

6649

CONGO*

86

MALI*

United States

Number of people infected
Per 100,000 population

Sources: WHO; UN; The Economist

*Declared Ebola-free  †Excluding Congo
Challenges

• PIH is not a disaster organization
• Ebola is a deadly disease and care delivery is dangerous
• Operations development in two new countries simultaneously and in an emergency
• PIH’s model is one of accompaniment supporting the public sector model
• Human resources needs-- short and long term
• Lack of assistance from hospitals and health systems in US
• Restrictive environment for returning clinicians
Opportunities

• Help alleviate human suffering and provide aid
• Raise awareness of ongoing tragedy
• Opportunity to help strengthen the weak/non-existent health system
• Support Liberia and Sierra Leone’s public sector
• Collaborate with partners, governmental and non-governmental
we go
we make house calls
we build health systems
we stay
5 Pillars of PIH’s Ebola Response

Direct effort and support of government

1. Stop transmission
2. Treat Ebola
3. Strengthen health systems
4. Train health professionals
5. Generate new knowledge

London Review of Books, Farmer 10/14
#Survivors Count
A cohort of PIH clinicians and a staff of local health care providers raised the flag at PIH’s first ETU, in Port Loko, Sierra Leone on November 13, 2014.

Photo by Jon Lascher / Partners In Health
What is a day like in the ETU?

“We start, sadly, by acknowledging who our deaths are from the night before. We have a bunch of white boards in the wards labeled “suspect” and “confirmed,” and all the patients listed. We quickly go over everyone’s case and make a high-level plan for what we’re going to do—lab tests, etc. Then we break into teams. (We always have international staff—Americans with PIH, Cubans with the World Health Organization, locals with the Ministry of Health and Sanitation.)”

- Karin Huster, RN
A patient prepares to receive an IV at Maforki ETU.
*Photo by Rebecca E. Rollins / Partners In Health*
Photo: Rebecca E. Rollins/Partners In Health
Partners In Health clinicians receive patients in the triage area during the night shift Jan. 14, 2015, at the Maforki Ebola Treatment Unit in Port Loko, Sierra Leone. As a family of three leaves the ambulance, nurse Tim Cunningham swaddles the baby in a wrap.
A PIH clinician pours oral rehydration solution. IV and ORS treatments are used simultaneously for each patient who is admitted to the ETU.

Photo by Rebecca E. Rollins / Partners In Health
PIH clinicians must bring all food, medicine, and supplies necessary for patient care at the beginning of their shifts.

Photo by Rebecca E. Rollins / Partners In Health
Maternal Mortality: Sierra Leone

- 28 women in the U.S. died for every 100,000 live births.
- 1,100 women in Sierra Leone died for every 100,000 live births.
  *Worst in the world
- World Bank, 2013

Photo by Jon Lascher/Partners In Health
“It was hard to keep patients from mingling because patients were sympathetic to one another,” she said. “And in Sierra Leonean culture, we take care of each other.”

Sister Elizabeth Koroma, Senior nurse anesthetist at Princess Christian Maternity Hospital in Freetown
PIH nurse Cheedy Jaja prepares to enter an infectious area of Maforki ETU.

Photo by Rebecca E. Rollins / Partners In Health
Emergency Response in Sierra Leone October 2014 to May 2015

• 14,379 confirmed EVD patient encounters at Maforki ETU
• 30,303 all patient encounters at Maforki ETU
• 46,203 patient encounters for all patients across Maforki ETU, Port Loko and Kono CCCs, and PCMH(Maternity Hospital).
• 1,210,895 encounters total including all facility encounters and CHW screenings.
PIH leadership and Wellbody Alliance members trek to the homes of survivors of the Ebola virus in Freetown, Sierra Leone.

Photo by Rebecca E. Rollins / Partners In Health
PIH Key Initiatives:
Staff, Stuff, Space & Systems

1) Safe Triage & Isolation
2) Health Provider Capacity-Building & Support
3) Infection Prevention & Control
4) Disease Prevention and Surveillance
5) Infrastructure & Supply Chain
6) National Planning
Let US Continue to wash our hands Liberians
Generate New Knowledge

- Treatment
- Vaccines
- Diagnostics
- Operational research
- Survivor complications
  - Vision loss
  - Joint pain
  - Cognitive Functioning
Current Environment

• Unpredictable Epidemic
• Global disagreement on implementation strategy
• Disconnect between funders and government
• Shifting strategies among funders
• Highly infectious disease requiring complex interventions
Cost of Ebola vs. Long-term Investment

• 4.3 Billion
  – Amount committed by external donors to fight Ebola in Sierra Leone, Guinea and Liberia

• 1.58 Billion
  – The 2012 gap in budgets to ensure essential healthcare for all the populations for all three countries

• 3X
  – The Cost of dealing with this Ebola outbreak is nearly THREE times the annual cost of investing in building a universal health service in all three affected countries.
Strengthen Health Systems

- Health system collapses
- More children are dying from other diseases than Ebola
- Secondary effects include other epidemic diseases (measles), increasing maternal mortality
we go
we make house calls
we build health systems
we stay
The “survivors’ tree,” a mango tree outside Maforki ETU, where each discharged patient ties a piece of cloth around a branch to celebrate his or her recovery.

*Photo by Rebecca E. Rollins / Partners In Health*