

# REVERSE INNOVATION – LEARNING WITH AND FROM PARTNERS IN RESOURCE POOR SETTINGS

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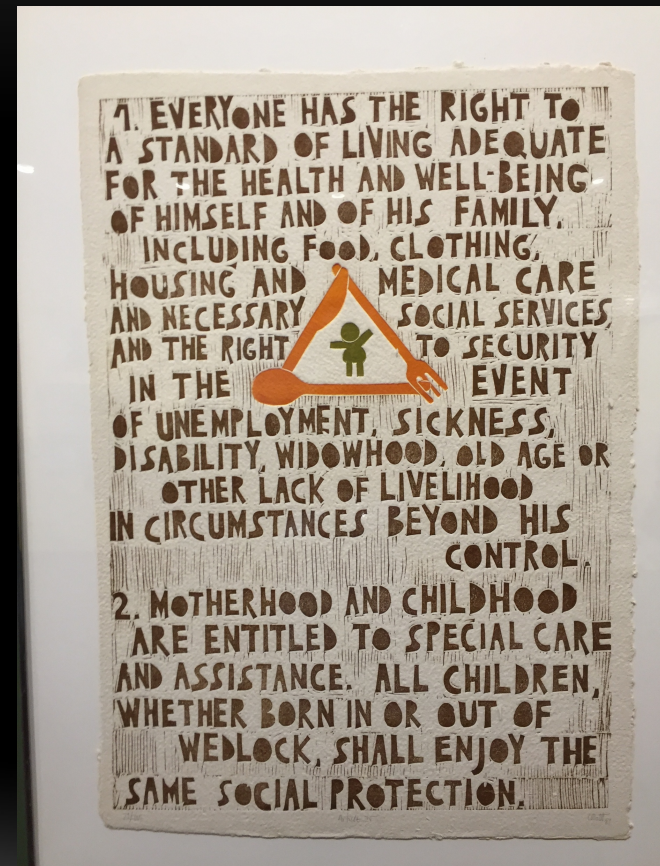
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# AIMS



- 1) An outline of Global Health
- 2) Examples of innovation from LAMIC settings
- 3) An appreciation of complexity and 'tame' vs 'wicked' problems
- 4) Relevance of GH to all

# AN INTRO TO GLOBAL HEALTH



# MDGS (PRE-2015) AND SDGS (POST-2015)

## MDGs

- 1. Reduce poverty and hunger by half
- 2. Ensure that all boys and girls complete primary school
- 3. Achieve equality between men and women in school and at work
- 4. Reduce the number of children under-five who die by two-thirds
- 5. Keep women healthy before, during and after pregnancy
- 6. Combat HIV, malaria and other diseases
- 7. Ensure that the environment is protected
- 8. Ensure that world governments work together to reduce debt, give more and better aid, and make trade fairer

## MDGs to SDGs





# UK NHS – BORN 5 JULY 1948

- Fewer doctors and beds per 1000 than Europe
- (What about lawyers and prisons?)
- NHS best of 11 countries for: efficiency, effective care, safety, patient-centred care
- Shorter length of stay
- 9.27% of GDP in 2012 (US 16.90%)
- 1.747 million in contact with mental health services 2014
- 105000 admitted
- 21.7 million OP/CMHT contacts
- 2014/15 budget £113 billion (£96 billion England)

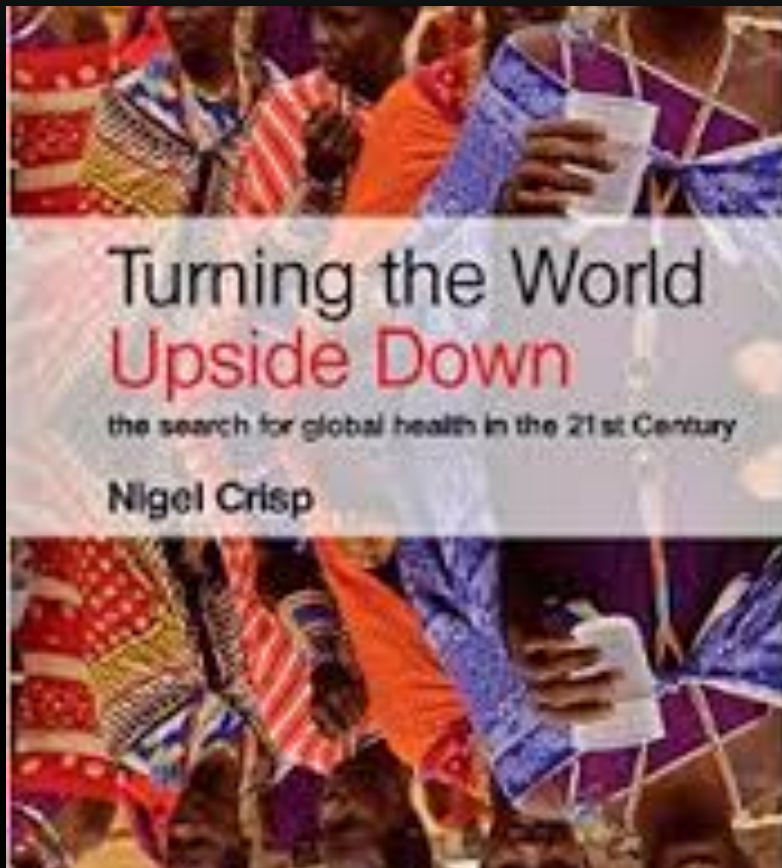


# HEALTH AND DISEASE DO NOT RECOGNIZE BORDERS – GLOBAL HEALTH PARTNERSHIPS

- UK NHS is increasingly working with low and middle-income countries for mutual benefit
- East London involved in Uganda since 2003 and Bangladesh since around 2013
- Affiliations with King's College in Somaliland and Sierra Leone
- Covers mental health and community health
- Benefits to partner countries
- Benefits to UK NHS
- Benefits across partnership network
- Supported by 2005 UK Gov Blair Commission
- Supported by 2007 Crisp Report
- Now supported by UK DH and HEE
- Future Partnership with Vietnam/Laos/Cambodia?



# UK NHS GLOBAL HEALTH PARTNERSHIPS



- Improving clinical care
- Developing services
- Improving training
- Supporting health advocacy
- Supporting research
- Building confidence
- Developing networks
- Aim to meet MDGs and SDG3

# DEBATE ABOUT AFFORDABILITY OF THE NHS – AND GLOBAL HEALTH?



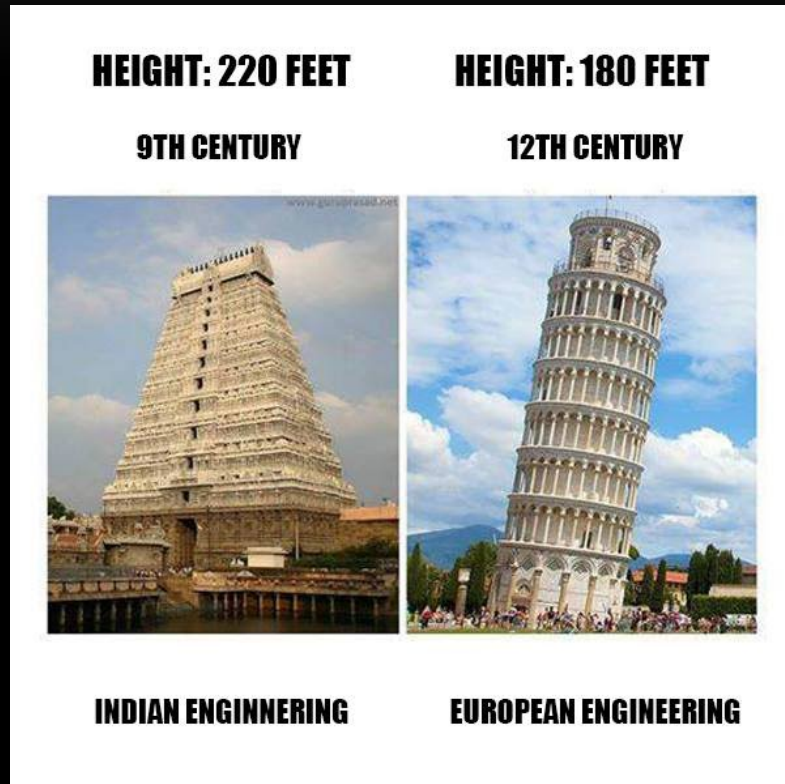
# BUT GLOBAL HEALTH IS NATIONAL HEALTH







# REVERSE INNOVATION: IMPORTING SOLUTIONS FROM LAMIC PARTNERS



- 'In a pluralistic society there is nothing like the indispensable public good; there is no objective definition of equality; policies that respond to social problems cannot be meaningfully correct or false; it makes no sense to talk about 'optimal' solutions to social problems... Even worse there are no 'solutions' in the sense of definitive and objective answers'
- (Dilemmas in a General Theory of Planning 1969 - Horst Rittel and Melvin Webber)
- 'Tame' (simple, logical) vs 'Wicked'

# MENTAL HEALTH IN UGANDA – A SUMMARY

- 32 psychiatrists (Kenya 80)
- 1 mental hospital – Butabika
- (Capacity 500; actual 900)
- PCOs
- Nurses
- CHWs
- Population 37 million
- Doubles every 16 years
- 90% never treated
- Comm facilities
- Traditional healers
- Churches
- Missionaries
- Families/communities

# UGANDA – BUTABIKA AND EAST LONDON

- First conceived 2003
- Ugandan recognition of scale of public health problem
- Mental illness considered highest priority after infectious disease
- Success against odds in HIV control noted
- Negotiated model of sustainable partnership via THET
- THET support
- Trust support
- Scoping, evaluation, trial and error, strategy/business plan



# BENEFITS OF PARTNERSHIP – TO UGANDA

- Better clinical care
- Better services
- Better training
- Health advocacy
- Research benefits
- Network benefits
- Cultural exchange
- Self-confidence
- Friendship





# BENEFITS OF PARTNERSHIP – TO ELFT/UK

- Individual development
- Organisational reputation
- Support of/from diaspora
- Source of better trained NHS staff (Beware 'Brain Drain')
- Research data/skills
- Service models (PCOs, UK Physician Associates)
- Teaching methods (Simulation, d-learning, MH-GAP)
- QI (innovation/resource optimisation)
- Grassroots engagement (Recovery College, Making People Better programme)



# PCOS – UGANDAN INNOVATION

- Pragmatic solution to national health staffing
- Brainchild of late Professor Bosa (Makerere University)
- Backbone of Ugandan (mental) health provision
- Clinical, educational and administrative role
- Model adopted regionally and beyond



# SOMALILAND - ESSENTIALS



- 25 years post-conflict
- No UN recognition
- Population approx 3.5 million
- 197 doctors
- 1256 nurses
- 344 midwives
- (WHO rec. min. 2.3/1000)

# K(T)SP INVOLVEMENT

- Pre-2000: no med schools, no regulatory bodies, 1 nurse training course, few hospitals
- 2007 first doctors graduate (Amoud)
- 2008 – first Psychiatry training, first OSCEs and nurse training
- 2011 – OSCEs in Finals
- 2013 KSP CPD programme
- 2014 onwards – Intern teaching





# KTSP 2008 UG MENTAL HEALTH TRIP

- 1<sup>st</sup> mental health visit
- No new doctors for approx 25 years
- No prior psychiatry experience
- Interactive
- 'Low-Tech' Simulation
- Role-play
- OSCEs
- Model for Africa
- Implementation science in action





# BESPOKE DISTANCE LEARNING PLATFORM (KTSP/THET)



**medicineafrica**

Bringing the world to the bedside

# SIERRA LEONE SEPTEMBER 2015



# EXPECT THE UNEXPECTED





# INEQUALITY DOWN THE AGES

Europe circa 1800



East Africa 21<sup>st</sup> Century



BUT...

NYC 2017



East Africa 2017





# ATTAINABLE UNIVERSAL HEALTH COVERAGE? WHO VALUES HEALTH?

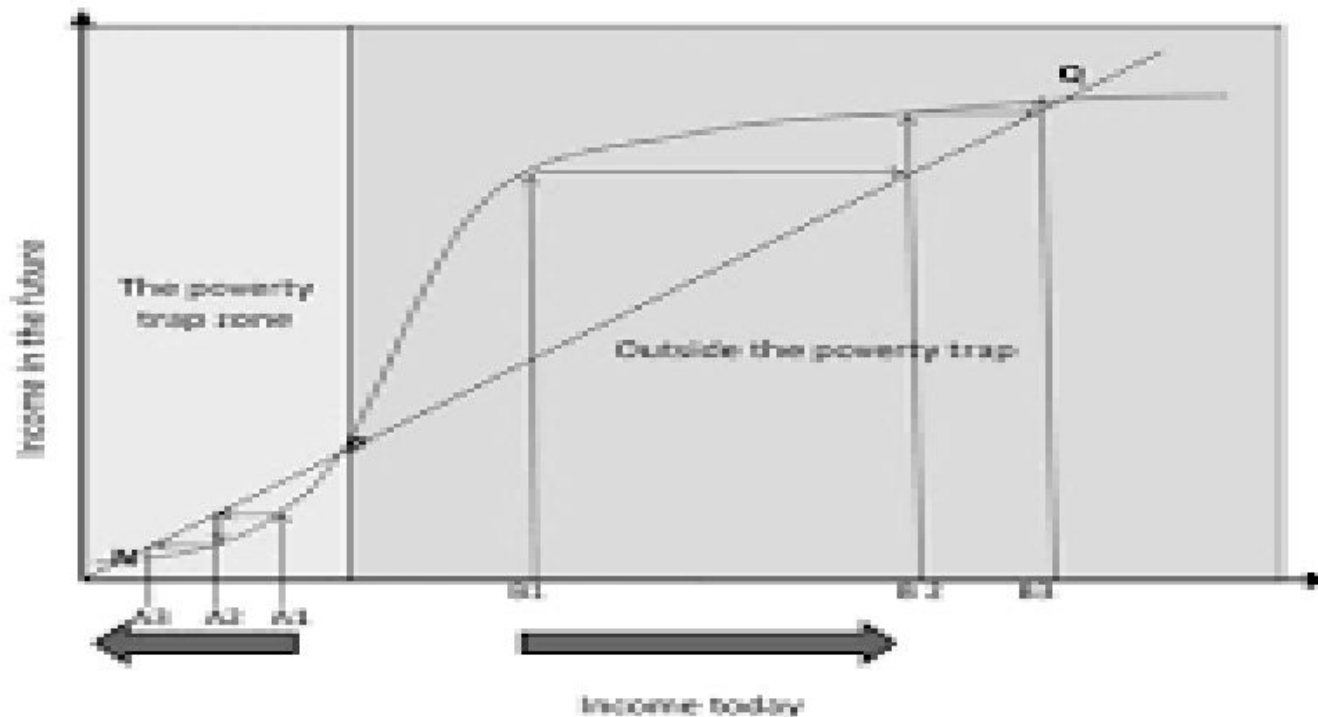


# WHAT DISORDER IS THIS?

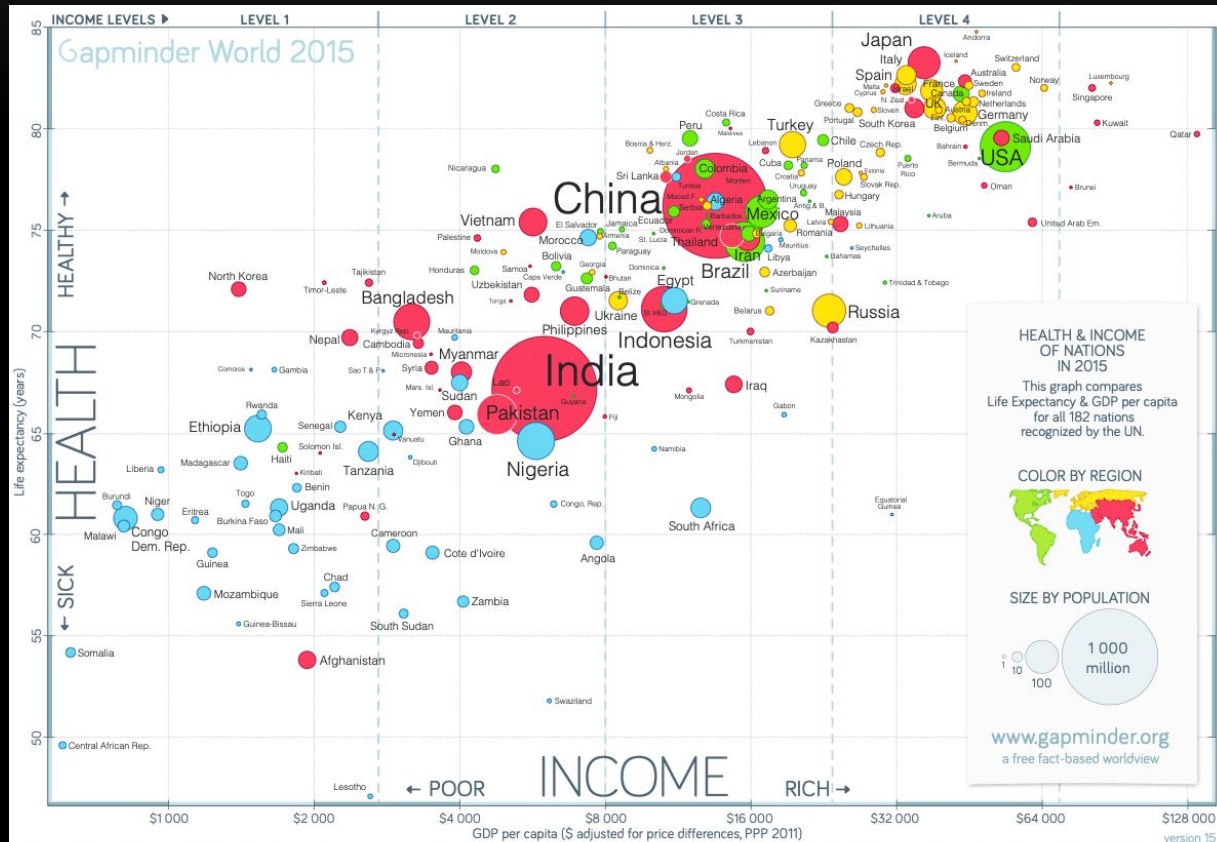
- ICD Z 59.5
  - (WHO 2007)
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# DEVELOPMENT

**Figure 1:** The S-Shape Curve and the Poverty Trap

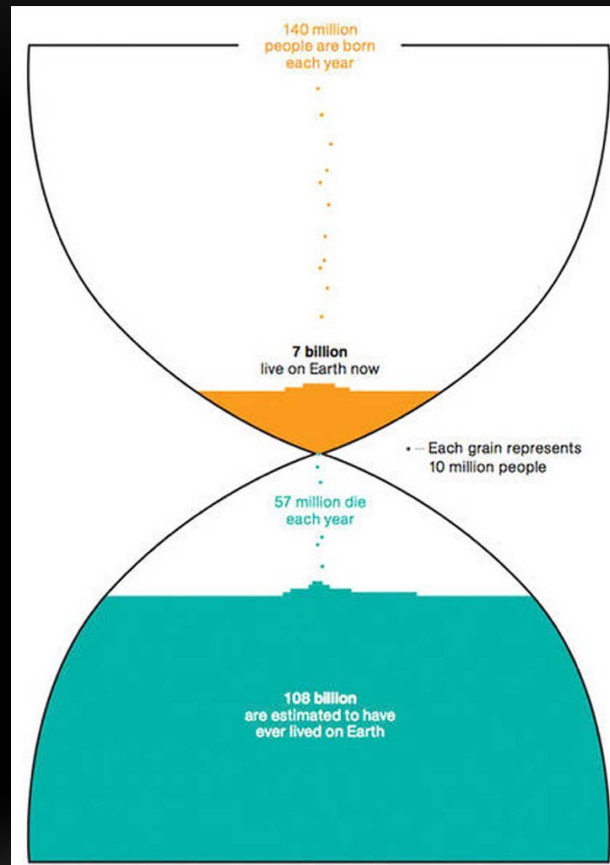


# WHERE ARE YOU?



DATA SOURCES—INCOME: World Bank's GDP per capita, PPP (2011 international \$) Income of Syria & Cuba are Gapminder estimates. It also uses log scale to make a doubling income show same distance on all levels. POPULATION: Data from UN Population Division. LIFE EXPECTANCY: HME GBD-2015, as of Oct 2015. ANIMATING GRAPH: Go to [www.gapminder.org/tools](http://www.gapminder.org/tools) to see how this graph changed historically and compare 500 other indicators. LICENSE: Our charts are freely available under Creative Commons Attribution License. Please copy, share, modify, integrate and even sell them, as long as you mention "Based on a free chart from www.gapminder.org".

# BEWARE THE SANDS OF TIME





# A FRAGILE FUTURE NO DOUBT



BUT...



**Francis**  
**PICABIA**

**Our Heads Are Round so Our Thoughts  
Can Change Direction**

# DATA-BASED INNOVATIONS FROM EAST AFRICA FOR GLOBAL HEALTH BENEFIT

- Epstein-Barr virus epidemiology
- Role of EBV in lymphoma
- First trials of solid tumour chemotherapy
- M-PESA technology
- Smallpox eradication (pictured)
- 'ex-Africa semper aliquid novi'  
(Pliny the Elder)



# COMMUNITY ENGAGEMENT INNOVATION FOR GLOBAL HEALTH GAIN

- HIV reduction in Uganda
- Clinical Officers (medical, surgical, psychiatric) across Africa
- (Note: Physician Associates in richer countries now)
- (Volunteer) Community Health Worker programmes
- Abolition of 'chaining'
- Patient-led Peer Support and Recovery Colleges





# COMMUNITIES IMPLEMENTING SDG3 AND HEALTH AS A HUMAN RIGHT (UN 1947)



# SOME VIETNAM HEALTH ACHIEVEMENTS



- Identification of bubonic plague cause (Yersinia)
- Link to NPC of EB virus
- 1976 Resolution 15 – free treatment of schizophrenia and epilepsy
- Psychiatric staffing levels (e.g. more than 900 psychiatrists for population of 95 million)
- Training programmes
- Research evidence on cost-effectiveness of schizophrenia treatment
- International collaboration policy

# SOME PRIORITIES FOR VIETNAM?



# HOW NOT TO INNOVATE?



- Millennium Villages (Uganda)
- Play-pumps (South Africa)
- Zipline (Ghana)
- Babylon Health (Rwanda)
- Electronic records
- MRI and neurosurgery as RTA solution
- Health-force based on volunteers



# EQUIVOCAL INNOVATION?



- Microfinance
- Telemedicine
- Free soap and nutritional supplements
- Implementation vs Innovation
- Waste vs Efficiency
- Tame vs Wicked problems
- Patient Safety???

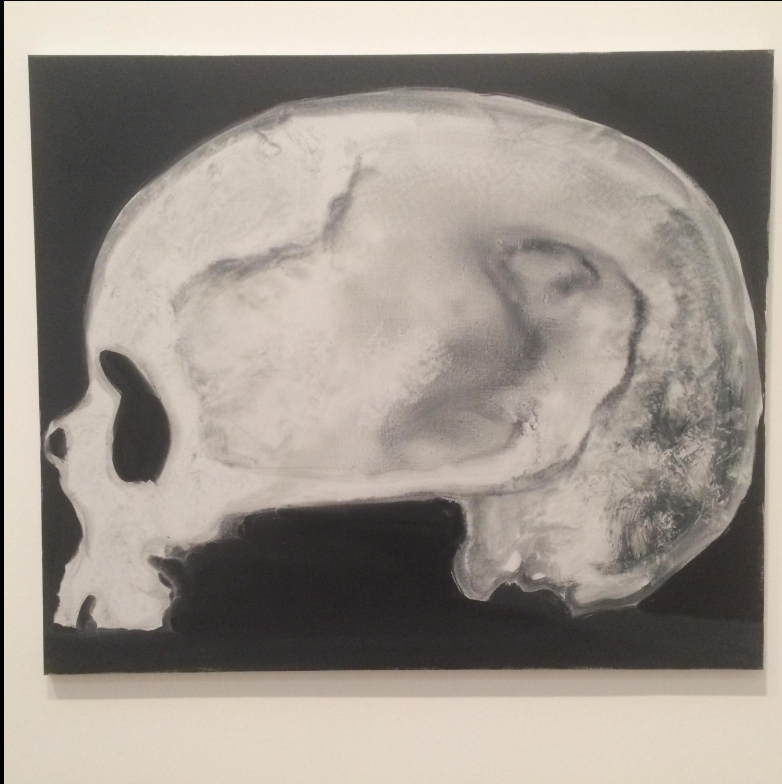


# WHAT WORKS – COMMON THEME?



- Slow Food Gardens (Africa)
- MoSan toilets (Bangladesh)
- Safir water filter (Kenya/Bolivia)
- Flying 8 loom (Ethiopia)
- Friendship bench (Zimbabwe)
- M-pesa (Kenya)
- Clinical Officers (Uganda)
- Virus eradication - smallpox, polio?? (Somalia, Bangladesh)
- Peer Support (Uganda)

# ISSUES AND CHALLENGES FOR ALL



- Poverty
- Population – bubble 2050; decline 2100
- Migration – voluntary and forced (IDPs and refugees)
- Climate/pollution
- Food
- Water
- Energy
- NCDs – hypertension, diabetes, cancer
- Mental Health – 14% avoidable deaths
- RTAs – 1.25 million deaths globally; 90% Low Income
- WHO ‘top 10’ and AMR
- Disease X

# 3 TAKE HOME MESSAGES



- 1) National Health is Global Health
- 2) Co-creativity is key – find a partner
- 3) Anyone can do this

‘THERE ARE NO PASSENGERS ON SPACESHIP  
EARTH – WE ARE ALL CREW’

