

Hunting black swans in Global health



Ebola a well prepared disaster

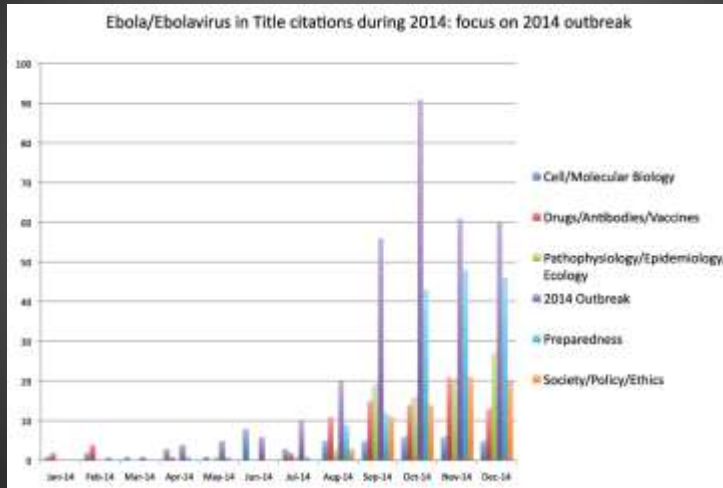
Morten Sodemann, professor of global health
Center for Global Health, University of Southern Denmark

Ebola: The epidemic of epidemics

- Epidemic of **swing door poverty**
- Epidemic of **misunderstanding**
- Epidemic of **orphans**
- Epidemic of **the unexpected**
- Epidemic of **mismanagement**
- Epidemic of **poverty terror**

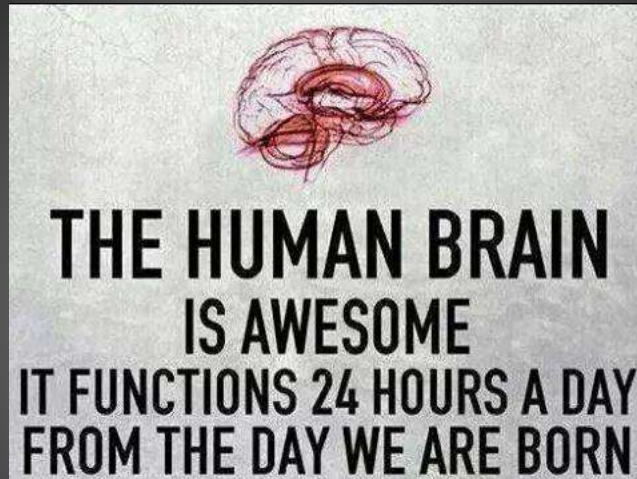
An epidemic of publications

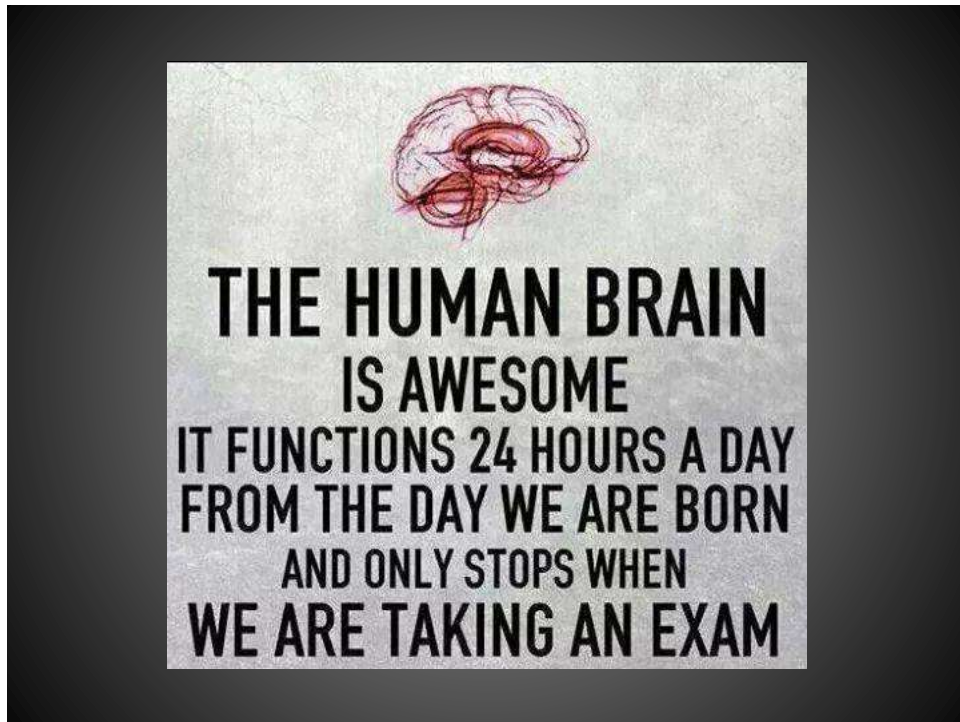
Figure S20. Subjective classification for current outbreak focus or, alternatively, for the indicated...



Ballabeni A and Boggio A 2015 [v1; ref status: approved 1, <http://f1000r.es/54v>] F1000Research 2015, 4:68 (doi:10.12688/f1000research.6206.1)

F1000Research





Constantly producing
& consuming disasters



"In pandemics
good isn't good enough"



Tweet citing chief medical officer Sierra Leone at
Sixty-eighth World Health Assembly 18th May 2015



Survey in 4 remote regions: Liberia (Sept. 2014):

3 of 6 doctors had fled
 Nurses didn't show up
 Rubber gloves & sterile equipment for birth assistance missing
 No access to running water or handwashing
 2 of 19 centres had isolation facilities; no water
 6 of 19 health centers access to mobile phone

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6340a3.htm?s_cid=mm6340a3_w



**Cholera epidemic
 Guiné-Bissau 1987
 6000 cases in 7 weeks**

Cholera challenges in 1987?
Unsafe burials w. washing and eating
"Abduction" of patients from hospital facilities
Sneaking corpses out of quarantine areas
disguised as passengers in bush taxies
No training of staff: **staff infecting staff**
No isolation routines
Doctors disappeared
International community slow to react
WHO invisible

Gulu 2000 outbreak



Be good listeners and avoid bad management types

See full interview with Tony Oryema at www.globalhealthminders.dk



The terrible truth



- Money attracts wrong kind of health workers and managers
- Jeopardizing safety
- Lack clinical skills
- Barriers to learn and adapt
- Lack coordinating skills
- Terror management

The inverse mortality risk

Health care workers, lacking necessary equipment to provide safe treatment, were dying at even faster rates than patients

Fatal neglect of boring hygiene



Resistance to change in 7
dysfunctional WHOs.....?

$$r = f(n^m)$$

r = internal resistance to new ideas

n = number of employees

m = number of managerial levels

Hard talk: WHOs knowledge problem

*“Local academics and intellectuals
being hired as consultants by the bi-
and multilateral donors and often
produce 'ritualised' reports that are
neither critical nor innovative”*



Medical training: Send in the Cubans!

Radical changes in medical education needed globally

Global outbreaks and collapsed health care systems have led to a re-evaluation of medical education. The WHO has developed a framework for health care education that includes competency and social health components. Long-term health education and education systems that are more adaptable to outbreaks and crises. All these available resources have been incorporated to produce a list of medical education goals that are then defined to meet the challenge of advancing global health care globally. The authors will explore

ways in which countries to meet local needs. They go a long way to provide the basis for the kind of health professional education that is needed.

The major challenges faced by Africa and other low-income and middle-income countries require radical solutions—the ones that have been defined by an expert panel.

could be adapted to primary care and more effective models of education delivery are available more quickly than would currently be possible. Further, expanding postgraduate training would also be required and could be through a competency education process and related delivery to health care workers. It is not just the low-

www.thelancet.com/lancetgh Vol 3 March 2015

Panel: The six star doctor¹

(Cuban medical doctor)

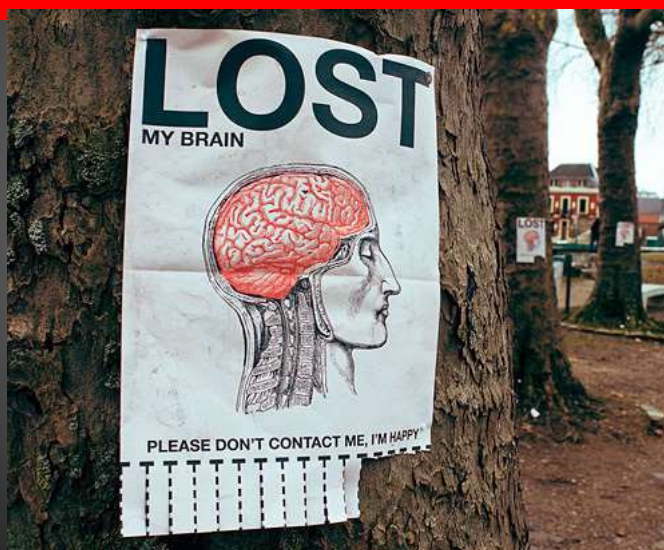
- Care-giver (physical, mental and social): including comprehensive continuous curative, preventive, and rehabilitative care
- Decision-maker: choosing the best way to address health problems, often within resource constraints, equitably benefiting patients and communities
- Communicator: persuading individuals, families, and communities to adopt healthy lifestyles and become partners in the health effort
- Manager: assimilating and sharing knowledge within multidisciplinary teams, working in partnerships for social development
- Community leader: understanding the determinants of health in the physical and social environment, taking positive interest in community health activities benefiting large numbers of people
- Teacher: helping patients and families to manage common conditions; training non-physician health workers to fill the human resource gap

del Rosario Morales Suárez I, Fernández Sacasas JA, Durán García F. Cuban medical education: aiming for the six-star doctor. *MEDICC* 2008;10:1–9.

Nothing to see here

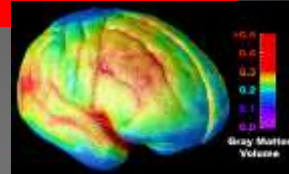
- 75 % die from dehydration (NOT from media friendly bleeding)
- Double drip made headlines....
- 25 % of ebola (EVD) cases stem from funerals
- 30 % without known source of infection
- 25 % found Postmortem!
- Fishermen continued to deliver fish to neighbouring countries

Global Health doesn't have a brain



A human brain

Plans
 Purpose driven
 Moral and value
 Interacts
 Critical self reflection
 Strategy
 Observes
 Gathers information systematically



Willfull blindness

Failing to see patterns & ignoring facts

”Ebola
 is *always* a highly localized, *short-term*,
 typically *rural* event”

Evidence is not the plural of anecdotes

All maps from Guiné contradicted this by showed every sign of epidemic expansion
But local health authorities, Ministry of health and the local WHO stuck to the doctrine
in spite of the overwhelming facts

highly localized, **short-term**,
typically **rural** event”

Mapping Medical Disasters: Ebola Makes Old Lessons,
New <http://journals.cambridge.org/download.php?file=%2FDMP%2FS1935789315000142a.pdf&code=eeeb08a00f722ff6f111c69b82140018>

“It is unclear to the panel why
early warnings, from May
through to July 2014, did not
result in an effective and
adequate response”



“Although WHO drew attention to the ‘unprecedented outbreak’ at a press conference in April 2014, this was not followed by international mobilization and a consistent communication strategy”



The advertisement features a black and white portrait of Bill Gates on the left. To his right is a quote in large, bold, sans-serif font: 'YOUR MOST UNHAPPY CUSTOMERS ARE YOUR GREATEST SOURCE OF LEARNING.' Below the quote is the name 'Bill Gates'. In the top right corner of the quote area is a large, stylized double quote symbol. At the bottom left, there is a logo for 'cliff central.com' and at the bottom right, a red rectangular box with the text 'Future CEOs™'.

An epidemic is a disease of society

Opportunity to see weak spots
Unique view into everyday reality of
substandard health care

**IM NOT TOTALLY
USELESS.**

**I CAN
BE USED AS A
BAD EXAMPLE.**






in spite of its outlier status,
human nature makes us invent
explanations for its occurrence
after the fact, making it
explainable and predictable



The narrative of the black swan:
a political tool when we fail big time

A smaller, square image of a black swan swimming in dark water, similar to the one above but with a more neutral background.

The only black swan

Was the **REACTION** to the outbreak, the **CAUSE** for the reaction and the **DELAY** in reaction

Epidemics do not drop from heaven

And they don't evolve in a vacuum



7 genes that rocked the world



MSF: A perfect storm

Ebola outbreak was a perfect storm: cross-border epidemic in countries with weak public health systems that had never seen Ebola before

"For the Ebola outbreak to spiral this far out of control required many institutions to fail. And they did, with tragic and avoidable consequences."

—CHRISTOPHER STOKES | MSF GENERAL DIRECTOR

7 genes did what politicians & media failed

- **Revealed** countries' lack of political commitment to **global health security**
 - **Destroyed** WHO's **credibility**
- **Highlighted** non-compliance with **international health law**

7 genes stripped global health research naked

Medical research and development model *ill suited* to address the world's health priorities

www.thelancet.com Vol 385 May 9, 2015

7 genes that showed us we need more of what we haven't got

We wait for biomedicine to fail – *THEN we call in social science*

Social Pathways for Ebola Virus Disease in Rural Sierra Leone, and some Implications for Containment

By PLOS Neglected Tropical Diseases
Posted: October 31, 2014

Sierra Leone minister of health:
*'We thought health workers
were better informed'*



Denial, ignorance or fatal neglect?

The origin of the Ebola outbreak in West Africa has been traced to the likely confluence of a **virus**, a **bat**, a two-year-old **child** and an underequipped **rural** health centre in Guiné – and fatal global **ignorance**

Denial, ignorance or fatal neglect?

Demography, patterns of land use and of human-wildlife interaction are all implicated in zoonotic 'spillover' events

Huff, A.R.; Winnebah, T. Ebola, Politics and Ecology: Beyond the 'Outbreak Narrative'
<http://opendocs.ids.ac.uk/opendocs/handle/123456789/5853#.VWWA8T9EIM8>

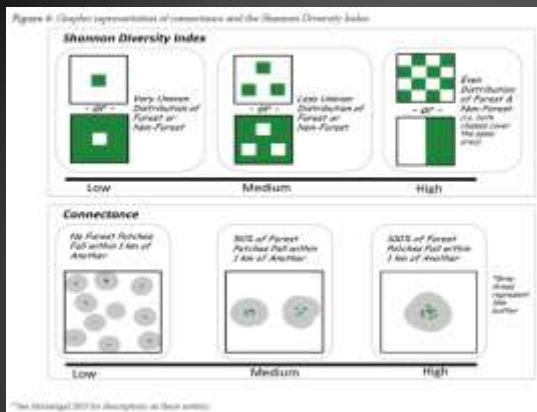


Large forest blocks should be protected from fragmentation within a landscape so that wildlife-human contact is minimized, and conditions are avoided for unusual species assemblages to occur that increase the risk of transmission of the Ebola virus from its natural reservoir(s) to new hosts including humans; and

"...humans' management of forested African landscapes may have promoted the Ebola virus 'jumping' to a human"



<http://www.efasl.org/site/>



Increases bat diversity
 Increases human wild-life contact
 Some patterns of deforestation
 facilitates bat-human contact

<http://www.efasl.org/site/>

7 genes that exposed us to structural violence in health

social structures and institutions
causing harm by preventing people
 from meeting their needs and by
 focusing on low risk groups

7 genes that exposed total global vulnerability

We are only as safe as the
most fragile states

incubation period longer than even
the farthest plane ride

www.thelancet.com Vol 385 May 9, 2015

7 genes that exposed a US state as a fragile unprepared state...!



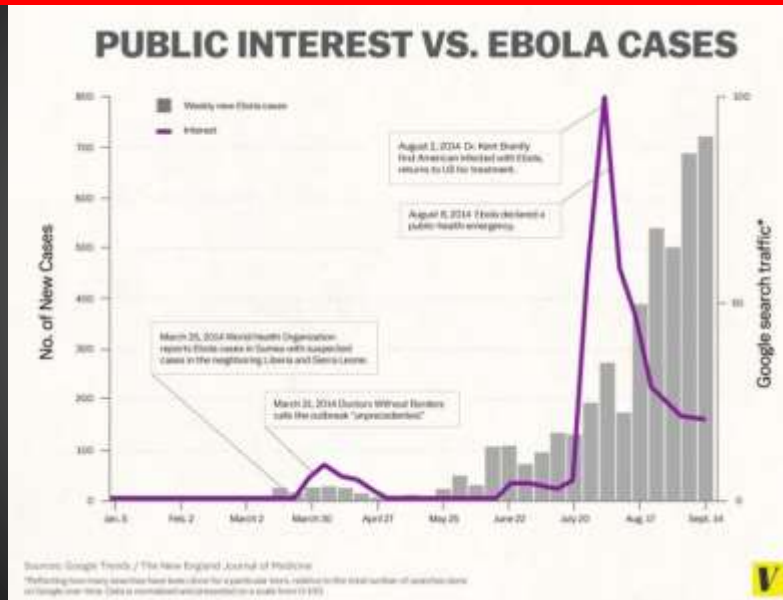
Texas hospital with untrained staff

No interpreter service

No standards inspite of SARS, bird flu etc.

Direct flights from West Africa

15,000 cases – **but only one alerted the UN**



<http://www.vox.com/2015/5/22/8640607/ebola-who-reform>

7 genes that made history

(With delay) the UN declared it a **threat to international peace and security** (second time in history) – but it took a cross atlantic case (Texas case)

7 genes that put migration back into global health



New and better prediction models needed

www.thelancet.com Vol 385 May 9, 2015

7 genes that rocked the world

Exposed that *social determinants* also act at country and regional level

7 genes that militarized pacifists

Doctors without Borders (and other NGOs) called for a *military response* to the Ebola epidemic, after 43 years of discouraging military intervention in other humanitarian crises.

7 genes that did what superpowers failed

Fundamental reform of WHO
Global emergency response fund

7 genes made more noise than the really big killers

HIV/AIDS, malaria, TB, diarrhoea,
pneumonia, maternal mortality

7 genes that told the truth about human beings:


What kills us may be very different
from what frightens us or substantially
affects our social systems



Was the epidemic a black swan?

NO!

A well prepared disaster that we
were warned about *30 years ago*



The New York Times

The Opinion Pages | OP-ED CONTRIBUTORS

Yes, We Were Warned About Ebola

By KENNETH KAHN, VERA STRNAD and CATHERINE VINT | APRIL 8, 2015

Note: this was uncovered by a journalist – not WHO or researchers

Paper from **1982**:
Annals of Virology

“The results seem to indicate that Liberia has to be included in the Ebola virus endemic zone. Medical personnel in Liberian health centers should be aware of the possibility that they may come across active cases and thus be prepared to avoid nosocomial epidemics”

<http://www.nytimes.com/2015/04/08/opinion/yes-we-were-warned-about-ebola.html>

Global health or global amnesia?



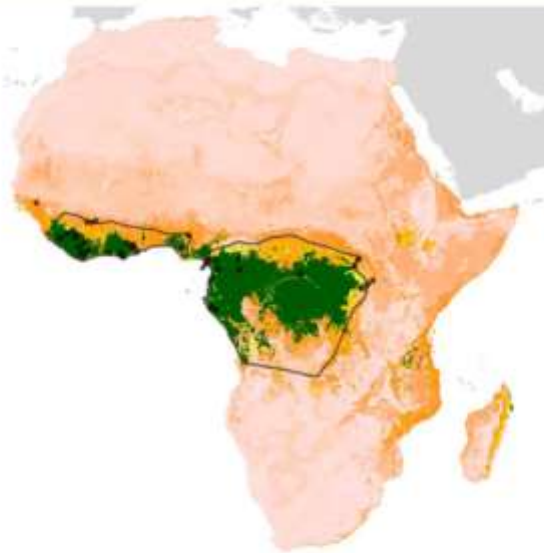
Ebola virus in bats and humans in West Africa since 2005 (at least)

Human blood samples collected in Sierra Leone, Liberia and Guinea between 2006 and 2008 from patients with suspected Lassa fever but tested negative for Lassa virus & malaria found that 8.6 per cent, of 220 samples tested were **positive for Ebola Zaire antibodies**

<http://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/5853/ID561%20Online.pdf?sequence=1>

Schoepp, R.J.; Rossi, C.A.; Khan, S.H.; Goba, A. and Fair, J.N. (2014) 'Undiagnosed Acute Viral Febrile Illnesses, Sierra Leone', Emerging Infectious Diseases 20.7

Territorial Range of Fruit Bats Implicated in the Ebola Epidemic of 2014.



The extent of the map is roughly congruent with the area most affected by the virus.
Source: Pigot DM, Goding N, Nyiro A, et al. *EJIF*. 2014; 10:755-4/vol10.04395.
<http://eifsciences.org/content/early/2014/08/05/eJIF.04395>²²

Not a new virus or a sudden mutation

Virus present, bats present,
transmission ongoing since 1992
So why the fuzz?

The virus doesn't decide on its
own whether it wants to be
severe

It has the potential – but human
behaviour and the environment
determines severity

Humans change behaviour and their environment

That could be the black swan



Measles, Cholera, TB and Dengue

Can also change severity caused by changes in human behaviour

The new normal is *crises*

Caused by our lack of understanding
of human behaviour & it's
consequences

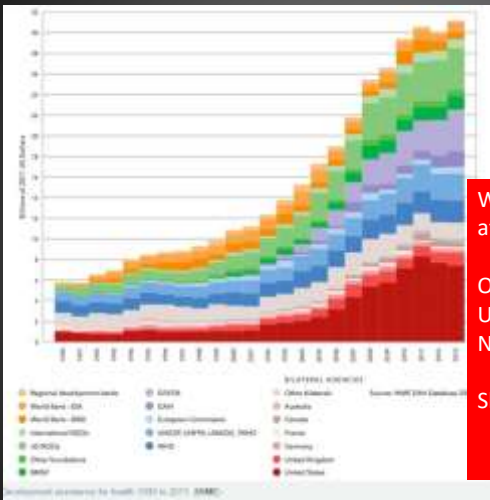
Migration is the new normal

*“Where the borders of the three countries intersect
is now the designated hot zone, where transmission
was intense and people in the three countries
continued to reinfect each other”*



Margaret Chan NEJM <http://www.nejm.org/doi/full/10.1056/NEJMp1409859>

Who's to blame for WHO failure?



WHO funding levelled off after 20 years of constant increase

Other global health investors have grown US and other channel more funding to National research and GH organisations

Shifted balance of power away from the WHO



<http://www.vox.com/2015/5/18/8621129/who-reform-ebola>



[http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(15\)60968-0.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(15)60968-0.pdf)

Failure second to none....

WHO's Regional Office for Africa (AFRO) has a record and reputation for failure second to none in global health today."

Richard Horton, Chief Editor, The Lancet

WHO still working with the black swan narrative



Margaret Chan WHO Director-General's speech at the Sixty-eighth World Health Assembly 18th May 2015

The world was ill-prepared to respond to an outbreak that was so widespread, so severe, so sustained, and so complex. WHO was overwhelmed, as were all other responders. The demands on WHO were more than ten times greater than ever experienced in the almost 70-year history of this Organization.



"A rapidly transmitted disease in the world's poorest countries, that's what WHO was created for, and it just utterly failed. It was unconscionable."

<http://www.who.int/dg/speeches/2015/68th-wha/en/>

But it was just a failure

- Lawrence Gostin, a professor of global health law at Georgetown University

<http://www.npr.org/sections/goatsandsoda/2015/05/21/408289115/who-calls-for-100-million-emergency-fund-doctor-swat-team>



Margaret Chan WHO Director-General's speech at the Sixty-eighth World Health Assembly 18th May 2015

The world was ill-prepared to respond to an outbreak that was so widespread, so severe, so sustained, and so complex. WHO was overwhelmed, as were all other responders. The demands on WHO were more than ten times greater than ever experienced in the almost 70-year history of this Organization.

"WHO does not have the operational capacity or **culture** to deliver a full emergency public health response"
(Draft of external review of WHO ebola response)

<http://www.who.int/dg/speeches/2015/68th-wha/en/>

<http://www.npr.org/sections/goatsandsoda/2015/05/21/408289115/who-calls-for-100-million-emergency-fund-doctor-swat-team>

Outdated institutions tackling future challenges

Challenges—Outdated Institutions

We are chasing the whirlwind of 21st century diplomacy with an international system still tethered to 19th century patterns of state behavior and cooperation. Caught in the middle are intergovernmental organizations, such as WHO, which appreciate the disease trends but remain accountable to sovereign states and their interests.¹⁵

Professor David P. Fidler,
in Evidence to
UK House of Commons Select Committee

*We live in a star wars civilization
with Stone Age emotions, medieval
institutions and Godlike technology*

Edward Wilson. The Social conquest of earth. Liveright 2013

The darker side of global public health

2002:

Chinese authorities lied about SARS cases for fear of trade & tourism effect

2004:

Thailand withheld information on avian flu cases for fear of tourism

2014:

Ebola epidemic declared March 2014, WHO aware but didn't declare emergency until 8th of August for fear of interrupting tourism, making affected countries angry and for fear of interfering with annual pilgrimage to Mecca

Experience is a ticket to a train
that has already left

Ebola teams from Uganda were not
wellcome in Liberia: their experience
from 7 epidemics was unwanted

<http://www.globalhealthminders.dk/interview-six-times-i-fought-a-war-against-ebola-and-beat-it/#comment-11121>

6 lessons we refuse to learn

1. Impact

Uncontrolled pandemics are devastating

- 1918 influenza pandemic killed 50 mill people within a year
- HIV/Aids has killed 40 mill since 1981
- Pandemics disrupt societies and economies and cause widespread secondary effects

2. Inequalities

Pandemics love poverty

Pathways by which poverty increases risk
include: inadequate sanitation, poor nutrition, crowded living conditions,
lack of healthcare services, poor infection control, lack of public health
infrastructure and poor governance

3. Uncertainty is a condition

The emergence, origin & transmission routes of individual pandemics are unpredictable

Uncertainty around transmissibility of new infectious agents and seriousness (case fatality) during early stages

4. Controllability

Most pandemics can be controlled but socio-economic and environmental context, speed and preparedness can change that

5. Panic & rage

Fear is natural with new threats.
Frequently translates into panic and
outrage in the face of pandemic
diseases

6. Media

Social epidemics, panic and fake facts spread fast.
Effective risk communication is key to managing
this response.

Politicised epidemics: Sierra Leone

When the first cases emerged in Kailahun, heartland of the main opposition party, they prompted rumours: country's ruling party had set up 'death squads' to take whole communities to treatment centres in order to administer a lethal injection

http://m.scidev.net/global/disease/feature/communicating-crisis-ebola-facts-figures.html?utm_content=bufferf531e&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Politicised epidemics: Liberia

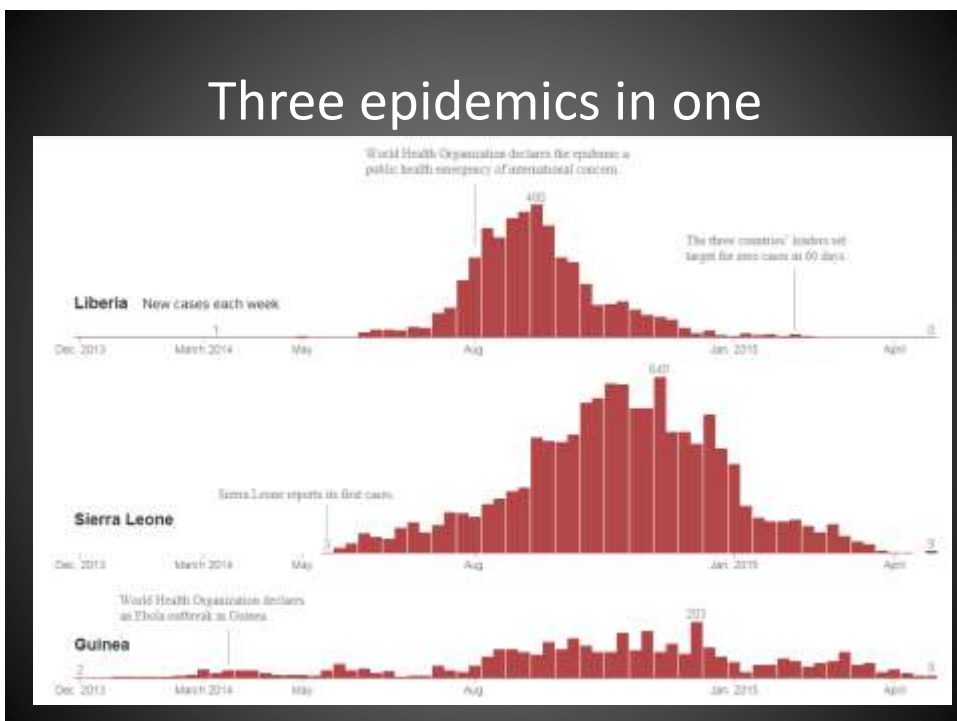
People accused President Ellen Johnson Sirleaf of deliberately poisoning citizens and of exaggerating the scale of the epidemic in order to receive international donor money

http://m.scidev.net/global/disease/feature/communicating-crisis-ebola-facts-figures.html?utm_content=bufferf531e&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

The Lancet Feb 2015

- Why didn't WHO declare **stage 3 emergency** = slowed response
- West African context added to complexity: **few doctors, civil war/post-conflict, low trust**
- **Guinea: initial public "success" was not true: many hidden patients**
- **Guinea was not used to UN presence =conflict**
- **Guinea government not used to "loud" NGOs** like MSF
- Suboptimal rural strategy used in **urban** setting
- **Top-down approach** in Liberia better in suburban/urban case detection and quarantines

The Lancet, February 10, 2015, [http://dx.doi.org/10.1016/S0140-6736\(15\)60075-7](http://dx.doi.org/10.1016/S0140-6736(15)60075-7)

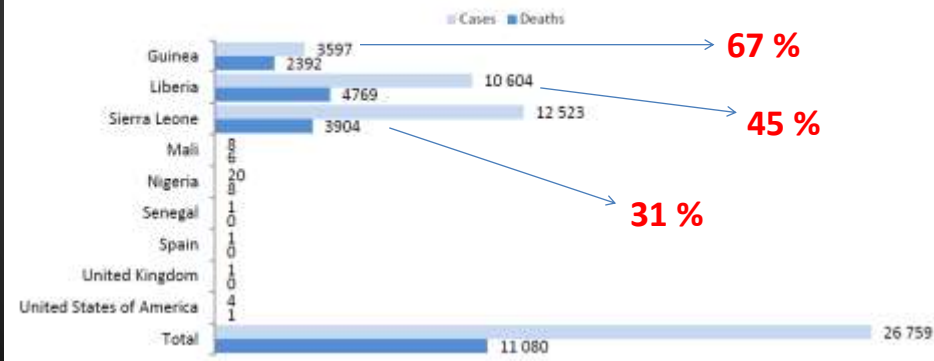


Mortality and the darling factor

27th May 26,971 cases (confirmed and probable) with 11,122 deaths (41 %)

UN Mission for Ebola Emergency Response (UNMEER) External Situation Report 22 May 2015

Figure 1: Confirmed, probable, and suspected EVD cases worldwide (data up to 10 May 2015)



<http://apps.who.int/ebola/en/current-situation/ebola-situation-report-13-may-2015>

Health worker case fatality

Guiné	56 %
Sierra Leone	68 %
Liberia	80 % (illegal home clinics?)

The multiple girl effect?

- Girls and women more likely to be infected by men who have recovered: virus in semen for 7 weeks
- Women at higher risk as the majority of the health-care workers are women
- women tend to be the ones caring for the sick at home and preparing the dead for funerals.
- Pregnant women seeking antenatal care more likely to be exposed to infected healthcare workers.

Sparrow, Annie. "Before Ebola, Western Doctors Believed the Age of Epidemics Was Over—It Wasn't." (2014).

During Ebola 2014

Pregnant women attending antenatal care dropped by 30 % (Sierra Leone)

Attended births dropped from 52 % to 38 % (Liberia)

Women die initially and men later?



Ebola graveyard, Gulu, feb 2015

Ebola teaching us resilience

Not only focus on visible manifestations of ill-being without changing the (social and health) structures that underpin them

Current epidemic has raised new questions

Sexual transmission
 Handling of hospital waste
 Subclinical cases
 Modes of transmission: superspreaders
 Survivors role in continuous spread / care
 Endemicity

Editorial

Lessons from the public health response to Ebola

Journal of Public Health Policy (2014) 36, 1–5. doi:10.1057/jphp.2014.11
 published online 11 December 2014

Current epidemic has raised new questions

New global interest in non-communicable diseases has shifted focus and funding away from infectious diseases

<http://www.palgrave-journals.com.proxy1-bib.sdu.dk:2048/jphp/journal/v36/n1/pdf/jphp201451a.pdf>



<http://www.eboladeeplly.org/articles/2015/05/7894/guineas-dr-sakoba-keita-taxi-drivers-drive-ebola-away/>

Resurgence in Guiné :
unsafe burials, bodies secretly
transported to home, still no
burning of corpses



New strategy:
Incentives to relatives for information
Including taxi drivers in health promotion



Resurgence Guiné

- Donor Darlings and donor devils:
- Guiné got less economic support than Liberia or Sierra Leone – but 5 times bigger
- All labs in Guiné = 100 ebola tests per day
- One lab in Monrovia = 200 test per day

PROJECT SYNDICATE
THE WORLD'S DRAGON PAGE

GLOBAL HEALTH & DEVELOPMENT

Sierra Leone lost 9 % of it's Doctors in 7 months

Reversing Africa's Medical Brain Drain

OXFORD – There is extraordinary consternation over Uganda's plan to send almost 300 health workers to Trinidad and Tobago. The plan reportedly includes four of Uganda's 11 registered geriatricians, 20 of its 28 radiologists, and 45 of its 92 pediatricians. In return, the Caribbean country (which has a doctor-to-patient ratio 12 times higher than Uganda's) will help Uganda exploit its severely underused oil fields.

Uganda's foreign ministry says the agreement is part of its mandate to promote the country's interests abroad through the transfer of skills and technology, as well as an opportunity to earn foreign

Koroma and Lv Infectious Diseases of Poverty 2015, 4:10
<http://www.idpjournals.com/content/4/1/10>

The trouble is that the so-called brain drain in Uganda and elsewhere is not the cause of this dearth of health-care workers. It is only a symptom of health-care systems that are already in crisis. The ultimate solution is not to discourage professionals from working abroad; it is to ensure better training and more amenable working conditions. That way, we health-care professionals can focus on the task at hand: providing health care to our people.

<http://www.project-syndicate.org/commentary/developing-countries-doctor-shortage-by-serufusa-sekide-2015-05>

Ushahidi

PRODUCTS INITIATIVES SERVICES MISSION CONTRIBUTE BLOG

Welcome to Ushahidi

Revolutionizing the way information flows

Ushahidi Omnitrap CrisisNET Ping SMSkeyc BRCA

Ushahidi

Make smart decisions with a data management system that rapidly collects data from the crowd and visualizes what happened, when and where.

Crowd sourcing epidemic- and environmental surveillance

nature International weekly journal of science

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News & Comment News 2015 May Article

NATURE | NEWS

African CDC needs more money and a strong leader

Ebola spurred US support for pan-African health agency, but centre needs much more to succeed.

Declan Butler

24 April 2015

Signs & Permissions

An African CDC

Strengthening West African Health Care Systems to Stop Ebola: Anthropologists Offer Insights

Anthropologists Offer Insights

November 10, 2014

Care of the Sick

Health Communications

Key points: Social scientists feel they are called in too late, run over by medical researchers

AMERICAN PSYCHOLOGICAL ASSOCIATION

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11/07/2015

An epidemic of fear

Psychologists' research is getting governments and health leaders at home and abroad to communicate with the public using disease indicators.

By: David L. Forster
2015, Vol. 66, No. 7
Full-text, page 40



An epidemic of fear? The Ebola virus has hit the United States, and the media has reported a pandemic that shocked the country.

Although there were only 10 confirmed U.S. cases... all of them people who had direct, prolonged contact with Ebola-infected patients in Texas. Researchers and their clients should be alert to other areas or governments that share the same risk factors as those in Texas.

Through the spread of Ebola they have come to a fairly clear policy: psychologists aren't supposed to people's emotional fear.

While researchers are quite confident about what we know about the pandemic, says Paul Brink, PhD, professor at the University of Chicago and president of the American Psychological Association, a major challenge is getting the public to understand and act on the information. "The message the public needs to understand is not all of the bad news, it can be fatal. It's critical and hard to understand especially because it's not clear how to protect oneself from Ebola patients in close contact, and Congress is demanding the right to question disease-related health workers who had contact with Ebola patients in close contact, and Congress is demanding the right to question disease-related health workers in the area."

For your decision about what you should do, you should have received your own personal risk and other factors that contribute to epidemic, but also about and other relevant events, and what your personal risk is, and what you can do to reduce it, and what you can do to reduce it, and what you can do to reduce it.

These researchers' findings can lead to the implementation of a set of a control plan, in response, and to help to help make sure actions meet needs.

Novel threats provoke anxiety

Framing risk, reducing panic

Timely, honest communication from a source an audience deems credible is essential to containing fear during an epidemic, but governments have the tough job of explaining risk and telling people how to act without also needing alarm, says Carnegie Mellon University psychologist Baruch Fischhoff, PhD. He chaired the Food and Drug Administration's Risk Advisory Committee and the Environmental Protection Agency's Homeland Security Advisory Committee.

"The discipline is very straightforward: identify the few things that people most need to know and figure out how to explain them in clear, trustworthy terms," Fischhoff says.

Psychologists also want to help

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POLICY FORUM

Strengthening the Detection of and Early Response to Public Health Emergencies: Lessons from the West African Ebola Epidemic

Mark J. Sedner, Lawrence O. Gostin, Hilare H. Garmer, John D. Kraemer

Published: March 24, 2015 • DOI: 10.1371/journal.pmed.1001804

- A more precise system to **risk stratify geographic** settings susceptible to disease outbreaks
- Reconsideration of **International Health Regulations Criteria** to allow for earlier responses to localized epidemics before they reach epidemic proportions
- Increasing flexibility of the World Health Organization director general to **characterize epidemics with more detail**

<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001804>

Split WHO in two



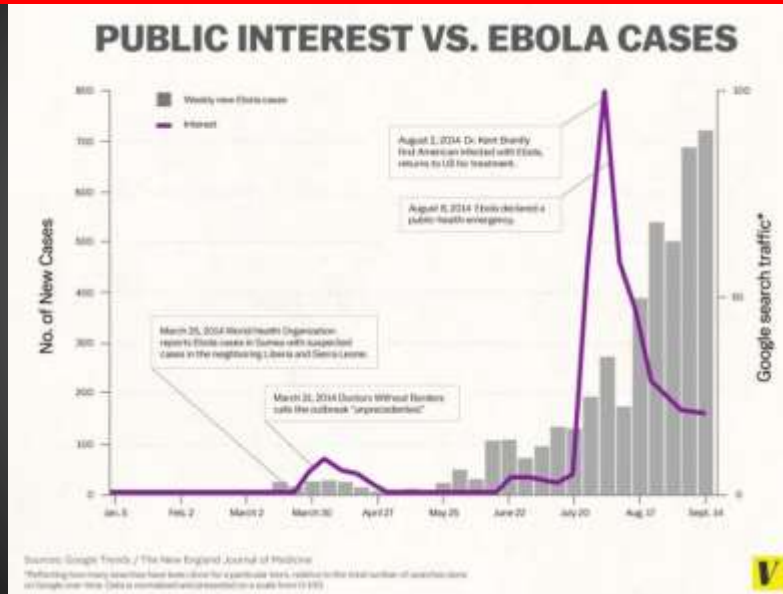
WHO's professional staff:
43.8% medical specialists
 0.1% are economists
 1.4% lawyers
 1.6% social scientists

[http://www.publichealthirnl.com/article/S0033-3506\(13\)00291-6/pdf](http://www.publichealthirnl.com/article/S0033-3506(13)00291-6/pdf)

Margaret Chan's plan to change WHO

- Establish a **\$100 million emergency reserve fund** that can finance field operations for up to three months in response to an infectious disease outbreak;
- Create a **rapid response team** that can be deployed quickly to provide services on the ground;
- Set up a **review committee** to consider improvements to the **International Health Regulations** and their requirements that states set up robust disease surveillance systems; and
- Develop a **semi-autonomous committee within WHO**, insulated from political pressures, that will have responsibility for declaring global health emergencies.

Losing the grip – easing political pressure



<http://www.vox.com/2015/5/22/8640607/ebola-who-reform>

Ebola? – what's that?

**Ebola Was the Wake-Up
Call for Global Health...**

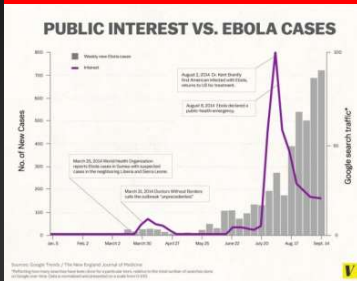
Are We in Danger of Hitting the Snooze
Button?

"The most common final end to a pandemic is what I call profound amnesia. SARS? What's that? We are not yet at 'Ebola? What's that?' But I guarantee you we will be there. And that's the real problem."

**Howard Markel, MD, PhD, the George E. Wanz
Distinguished Professor of the History of Medicine at the
University of Michigan [Source]**

<https://medium.com/@GHCoalition/ebola-was-the-wake-up-call-for-global-health-e4569288ad9f>

Losing the grip – easing political pressure



“That’s exactly what happened after H1N1 in 2009 – we lost the grip”

Julio Frenk, former minister of health Mexico, now Harvard

<http://www.vox.com/2015/5/22/8640607/ebola-WHO-reform>

Preparedness epidemic

9/11 got us on the wrong track down
a blind alley

Before September 14

most researchers in global health would not have considered it good public policy to allocate limited resources toward developing an effective vaccine against Ebola virus disease

JAMA Intern Med. 2015;175(1):7-8. doi:10.1001/jamainternmed.2014.6235

IHP
switching the gears
in international health policies

Home Weekly topics Articles

Articles

BRICS and global health: the case of the Ebola response

By **Gaoxiang Zou** on May 14, 2015

Gaoxiang Zou (China Program, COMETS Health Services Delivery Research Consortium, University of Leeds, Shenzhen, China & Institute for International Health and Development, Queen Margaret University, Edinburgh, UK.) wrote this blog together with **Kristof Decoster** (ITN), **Swati Srivastava** (PIH), **India**, **Shashikar Purshat** (PIH), **India** & **Indian Institute of Public Health Gandhinagar (IIPHG)**, **Shabina Choudhry** (University of the Witwatersrand) and **Daniel Fekedulegn** (Hennepin State University).

BRICS countries (Brazil, Russia, India, China and South Africa) (25 % of global GNI):
Very little
Disorganised
Unfocused

Hanan Nishi (Fundación Universitaria Autónoma de las Américas, Pereira, Colombia)

Ebola wasn't the Black swan



We wanted it to be

**IM NOT TOTALLY
USELESS.**

**I CAN
BE USED AS A
BAD EXAMPLE.**

Evidence doesn't solve any
problems

People talking to people do

Viruses and Epidemics do what they do

It's our response that can model them

**Researchers, public health
officials and WHO should have
and could have imagined**

How Ebola would explode in an
African suburban slum area

**We need researchers to
look around corners**

More creative imagination needed in
considering future infectious disease
scenarios and in planning



*Infectious diseases are like people:
they are born, grow and die. But
it's only through the actions of
human beings that they can
complete that life cycle. It's up to
human beings to break it*

Dr. Sakoba Keita, Guinea's National Ebola Response Co-ordinator



Crises is the new normal

Lets prepare for normal