

Pandemic Preparedness in the Next Administration

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Georgetown University Medical Center – Center for Global Health Science and Security

Harvard Global Health Institute

<http://globalhealth.harvard.edu/news/pandemic-preparedness-priorities-next-administration>

https://www.youtube.com/watch?v=wB7j_7vgZvY

Welcome

Mr. John Monahan, Senior Advisor for Global Health to President John J. DeGioia, Georgetown University.

Today's event is a product of a special partnership between Georgetown Center for Global Health Science and Security led by Dr. Rebecca Katz and Harvard Global Health Initiative lead by Dr. Ashish Jha and General Health Affairs whose Editor-in-Chief is Mr. Alan Weil.

Dr. Edward Healton, Executive Vice President for Health Sciences & Executive Dean, Georgetown University Medical Center.

- Global health is critical today more than ever.
- The role of academic institutions in global health is very important, the global health scholars and students who conduct critical work that informs scientific and medical advancements, drives policy, promotes health equity, and supports laws that pave the way for countries to defend and enforce policies that protect their health.
- Leadership changes are occurring globally: UN, World Bank, WHO, Global Fund, and the Presidency of the USA.
- Need to leverage research and educational programs to enhance the impact academia can have on global health.

Dr. Ashish Jha, Director, Harvard Global Health Institute

- Today we'll lay out an agenda to address the threat of pandemics. We are still not ready for the next big pandemic... so how do we get ready?
- Today we commit that Georgetown, Health Affairs and Harvard would be a lot more effective if we could team up, so this is the first of many events to follow.

Introduction

Dr. Rebecca Katz, Co-Director, Georgetown University Center for Global Health Science and Security

- Overview of a Pandemic threat – Nature Reviews Microbiology 2013 (11) pp 133-141
<http://www.nature.com/nrmicro/journal/v11/n2/pdf/nrmicro2949.pdf>
The Lancet Vol. 380 No. 9857 Dec. 2012 (pp 1946-55).
[http://www.thelancet.com/journals/lancet/issue/vol380no9857/PIIS0140-6736\(12\)X6051-3](http://www.thelancet.com/journals/lancet/issue/vol380no9857/PIIS0140-6736(12)X6051-3)
- Most recently we have experienced the threat of emerging diseases such as SARS, MERS, new strains of Influenza, Ebola, and Zika. Modelers predict a large scale pandemic similar to 1918 every 100 years and smaller pandemics every 40 years.
- Bill Gates is concerned that we are not ready to handle a global pandemic in the next 10 years. <http://www.news.com.au/technology/science/bill-gates-is-worried-about-our-ability-to-handle-a-global-pandemic-in-the-next-10-years/news-story/0ad5c8d9a72f08a5f4be6cfaf7ef7489>
- World Bank indicated that a severe flu pandemic can lead to \$3-6 Trillion in global economic loss but the cost of prevention is \$3.4 Billion per year to build the appropriate capacity for prevention, detection and mitigation.
- 2016 WHO had 5000 disease alerts/month; 300 disease follow-ups /month; 1 field investigation /day.
- Recently we have experienced Avian influenza/MERS/Swine influenza; with the new threats being Usutu Virus; Iikeus Virus; Louping Ill.
- Capacity building is essential. 2/3rds of the world is unprepared to handle a public health emergency.
- The Georgetown University Center for Global Health Science and Security is working with Harvard Global Health Institute to address pandemics, climate change and global health issues, health security, and quality health services; TALUS Analytics for Predictive Models; ATra to secure privacy in data analytics for disease surveillance; and No More Epidemics with their advocacy campaign to work with the government.
- Priorities for Pandemic Preparedness:
 1. Effective response and coordination
 2. Data and modeling for decision making
 3. Capacity building
 4. Urban governance – municipal development
 5. Legal and regulatory infrastructure
 6. One Health – global virome project; zoonotic disease detection and response
 7. Research and development
 8. Whole of society commitment

Panel 1: Domestic

Ms. Amy Pope, Deputy Assistant to the President & deputy homeland Security Advisor, National Security Council, The White House

Mr. Ron Klain, General Counsel, Revolution LLC (“The Ebola Czar”)

Amy Pope:

- Key is to talk to the public/engage public leaders/bring everyone to the table.
- Emerging Infectious Diseases (EIDs) are the #1 threat we face today.
- We do not have a plan for EIDs... we are ready for the flu – we established a “playbook” but Ebola did not fit the “playbook”... we needed to be agile and we needed contingency funding.
- Borders do not work against EIDs and pandemics.
- We all need to make investments around the world – help those countries in need of capacity building to address EIDs at their origin.
- 5 Lessons Learned:
 - Convene leaders early and often (bring people together/build relationships).
 - Rapid diagnostics and surveillance (collect samples and identify what we are dealing with rapidly).
 - Messaging – need a coordinated national message given by a trusted individual to convey the message. Need gravitas, background, and credibility.
 - Response time is critical. Be organized, have plans, execute at a high level of government engagement quickly.
 - Need to have resources in place rather than have to negotiate with Congress for the needed funding to address EIDs. Contingency Funds are critical.

[Note: (not part of presentation) - One Health Commission suggested reading: *Who’s in Charge? Leadership during Epidemics, Bioterror Attacks, and Other Public Health Crises*, by Laura Kahn.]

- Political leadership is key but underneath we need the subject matter experts that are career employees.
- This is a bi-partisan issue!

Ron Klain:

- Agreed... Pandemics are Bi-partisan issues!!
- Need to bring folks together on these issues. *e.g.* Ebola was handled with bi-partisan support. The mosquitoes transmitting Zika do not look at political parties.
- Regarding the new Administration, activism is key – willingness to speak out on global health issues. The risks have never been higher and the question of President-elect

Trump's perspective on these issues is dubious. Need to stress global connectedness as EIDs spread quickly, zoonotic diseases are increasing, and climate change is affecting the vectors of EIDs.

- Talk about the risk of pandemics occurring in the near future.
- We need to help the incoming Administration avoid an "isolationist" perspective to global events... it is not good when it comes to EIDs.
- Seven Measures to be addressed by the new Administration:
 1. Need a structure to be in place at the White House to fight a pandemic.
 2. Emergency fund.
 3. Capacity in federal government to fund logistics and local responses to pandemics.
 4. Domestic investment to be sustained (like what we did for Anthrax and Ebola) for pandemic preparedness – don't let it be washed away.
 5. Finish the WHO reform – we need a comprehensive reform of WHO.
 6. Legal reform in vaccines therapeutics and diagnostics.
 7. President's Global Health Security Agenda needs to be sustained.
- Next year will be the 100th Anniversary of the Spanish Flu Pandemic of 1918!!!

Pope and Klain:

- What metrics can we use to say we are ready?
 - The Global Health Security Agenda (GHSA) – <https://www.ghsagenda.org/>
It requires assessments be done to identify areas that are okay and to identify gaps that need to be addressed. It provides a blueprint that is public for countries to create transparency to identify the needs as well as hold countries accountable.
 - We need to be "readier" - learn from what we have done.
 - Need ready access to funds.
 - Mindset – the incoming administration needs to listen to the scientists and medical leaders.
- Funding – We need a fund for pandemics but the resources are scarce and convincing Congress needs to put aside funds and not spend them until needed for public health issues but that is very hard to accomplish. Public health is critically underfunded. People think we can stay isolated and avoid EIDs. Education is key!! Communication needs to be improved!!
- We fund the CIA to protect us (e.g. prevent terrorism) but we do not fund public health in the same way. There is a reluctance for the protection agencies to come together ... yet that is exactly what we need to have happen. We need the defense ministers and interior ministers to also come to the table and avoid redundancy – saves resources in the long run. Funding is currently not proportional to the threat.

- Stove pipes and pillars – terrorism vs public health threats; National Security and Public Health have a lot in common – we need to bridge the gaps. Need communication to help educate the public on preparedness... it is no longer an “either or” situation.
- Communication needs clarity, accuracy, and truth to be effective in the middle of a crisis. *e.g.* Zika was placed on the map early before we had any cases of Zika in the USA; a supplemental was sent to Congress; twitter was used as a communication tool; all before Zika came to the USA. Lessons learned: give people information early (*e.g.* Dr. Fauci spoke on Good Morning America) and demystify the disease and let the public make informed decisions. Get information out early and often with current data.
- Be transparent about the risks and any uncertainty. Sometimes science cannot guarantee or provide assurances and this is a challenge for the public to accept.
- Be honest... (*e.g.* President Obama said that we may see Ebola here in the USA but we are learning more about the disease to enable us to make us safer.) Relate to the public and be transparent on the science. At the White House, during the Ebola response, Ron brought the ‘perspective of the person on the street and their anxieties’ such that then they could pair the public’s concerns with the physicians and scientists so they could translate the technical information into the practical.

General Q&A and Commentary:

- Public health organizations need to speak up and be courageous.
- GHSA – academia needs to be there. State and local agencies in addition to Congress are needed in a response.
- Health care systems can form coalitions to prepare for a response. Hospitals and Health Care units are not equipped to do it alone.
- Assess needs at local level as we prepare for an EID.
- Evidenced-base sources – more information helps; engage the media (social media is key with the next generation).
- G-20 for the first time has taken up ‘health’ as an issue on their agenda.
- How do we do a better job with advocacy? Externalize more; educate; engage internationally.
- Don’t forget research and development needs – funding needs to be identified; biotech; concerns that there are no large market incentives to develop new vaccines, etc. NIH funding is key and needs to be sustained.

Panel II: Global

Mr. John Monahan, Senior Advisor for Global Health to President John J. DeGioia, Georgetown University

Dr. Hamid Jafari, Principal Deputy Director, Center for Global Health, CDC

Dr. Bill Steiger, Chief Program Officer, Pink Ribbon Red Ribbon

John Monahan:

Three key points to share: (1) The domestic and international aspects of a pandemic crossover 100%. The exit memos from President Obama's staff listed pandemics as the key issue of the future. (2) All transitions are challenging and education is key in getting this on the 'to-do-list' of the incoming administration. (3) There is no longer an option not to think internationally when it comes to pandemics.

Hamid Jafari:

- CDC deals with domestic and international health issues... working seamlessly with our international partners. Take the lessons learned and bring them back to the USA.
- CDC has had a positive experience with the various Administrations because health is bipartisan; funding for CDC has increased over the years [malaria initiative; PEPFAR (President's Emergency Plan for AIDS Relief), etc.]
- GHSA is bipartisan.
- Communication – get in before the crisis occurs. Help the public understand how jobs and the economy are tied to health stability.
- Technology – the bioterrorism threat continues.
- GHSA – The international partnership, World Bank/WHO/FAO etc., should be leveraged for needed dollars to assist other countries with gaps to help them manage the risk. GHSA breaks the cycle of panic because it strives for accountability and transparency; public health capacity building is key. 34 countries have gone through the assessment process to identify the gaps and to target assistance to address these gaps.

Bill Steiger:

- Key piece of advice: Something will happen to distract the DHHS from their domestic track and it will be an international health issue... it has happened with every Administration. (e.g. 9-11/anthrax/SARS/H5N1/food borne illness/contaminated medicines/Marburg virus in Angola occurred under the Bush Administration)... therefore they need to budget time to focus on international issues.
- There needs to be structure at the Assistant Secretary level to assist with coordinator roles which are key (e.g. Ambassador John Lange was the *United States Avian Influenza and Pandemic Ambassador*). There should be someone from the National Security Council in the White House who worries about these things everyday as their job, i.e. dedicated to global health preparedness.

- Small outbreaks can be diplomatic *e.g.* the tainted melons from Honduras in 2007 caused a lot of tensions between the two countries; it was a major diplomatic crisis.
- Need to go beyond Executive Orders from November that established an Inter-Agency Review Council that meets quarterly; establish an institutional bureaucratic presence.
- GHSA is an easy win for the new Administration; international relationships need to be sustained and expanded if possible. Preserve what is working well.
- Establish metrics to measure success:
 - Laboratory capacity
 - Disease surveillance
 - Emergency operations
 - Work force development
- Look at the gaps in our global disease detection network and plan to address them.
- West Africa is still a hotspot for civil war and challenges of controlling an EID. In order to protect the homeland we must work with our international partners... and we must lead when others such as the WHO have not yet declared a specific EID a public health emergency (*e.g.* we moved quickly when Marburg virus was in Angola).
- WHO will be getting a new Director General in 2017. The #1 priority should be pandemic preparedness as per the GHSA. It will call out the member states when they are not being transparent. Take some lessons learned from communication efforts surrounding the Ebola outbreak.
- Move WHO away from the private sector hostility... private companies will provide the needed vaccines/therapeutics but groups need to stop beating them up. Bring them into the partnerships. The bureaucratic role of WHO needs to recognize the regulatory capacity and reviews done by the USDA-FDA/ Japan/EU/etc.
- In the International space, relationships are key!! Don't lose what we have built to date.
- Engage with the private sector for financial preparedness and public health preparedness as they go hand-in-hand.
- We need an available contingency fund for pandemics. Need rapid deployment.
- The private sector engagement is needed to address the need for contingency funding. *e.g.* we need to compensate farmers who lost their animals (billions of chickens were killed to control a possible influenza pandemic).
- CDC/WHO work closely together under a Global Rapid Response Team using an Incident Command System. This new group needs to be strengthened.
- Joint external evaluations for transparency is key! Country scores are placed on the website for public awareness.

To Do Now:

1. Secretary of DHHS has a call-list and meeting list for the first 30 days (*e.g.* the WHO Director General) to help establish relationships... this process needs to be continued under the new Administration.

2. White House needs to call on the Agencies that have a stake in pandemic preparedness and convene a Council immediately so that we keep forward motion on this important issue.

- The public health community can help by engaging with the new Administration. Speak with one voice!
- Surveillance – early detection and lab capacity to detect and diagnose is essential.
- Having trained epidemiologists as front line workers in many countries really helps.

General Q&A and Commentary:

- Might the new Administration consider an “African CDC” to develop capacity and surveillance? Going back ten years, CDC and the Department have acknowledged that developing African capacity and surveillance is critical and there is a way to do this without spending an enormous amount of money for example, build on the success of the PEPFAR platform and the polio platform.
- Data-sharing is critical and should be a collective international effort.
- Advocacy agenda – there are many priorities and we all need to work together. Collectively the joint external evaluation needs to continue under the GHSA as it identifies gaps, assures transparency, and reiterates the need for funding.
- Funding is needed for (i) capacity building; (ii) contingency funding – ongoing and future funding; (iii) education – focus on this as a bipartisan issue!

Keynote Address – Dr. Anthony Fauci, Director, National Institute of Allergy and Infectious Diseases (NIAID), NIH

History tells us that the incoming Administration will be faced with an EID. A failure to look beyond our borders will be a disaster!

Global Health and Infectious Diseases:

- Established EIDs
- Newly Emerging Diseases
- Re-Emerging Diseases - more common.

Examples of Established EIDs

1. Lower Respiratory Infections..... >2.7M deaths
2. Tuberculosis..... 1.8 M deaths
3. Hepatitis B&C..... 1.4 M deaths
4. Diarrheal diseases..... 1.3 M deaths
5. HIV/AIDS..... 1.1 M deaths
6. Malaria..... 730,000 deaths

In 2015, worldwide, there were 56 Million deaths from EIDs. Death/disability is a major problem associated with EIDs. Lancet 388: 1459. (2016) Table 5.

[http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(16\)31012-1.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(16)31012-1.pdf)

Dr. Fauci became the Director on NIAID in 1984 and served under five Presidents and has given 250 testimonies before Congress and all were related to EIDs.

- | | |
|-------------------------------|------------------------------------------------------------------------|
| 1. Ronald Reagan 1981-1989 | HIV/AIDS
Dengue |
| 2. George H.W. Bush 1989-1993 | HIV/AIDS
Dengue |
| 3. William Clinton 1993-2001 | HIV/AIDS
Dengue
West Nile Virus
H5N1 Influenza
AMR |
| 4. George W. Bush 2001-2009 | HIV/AIDS
Anthrax
H5N1 Influenza
SARS |
| 5. Barak Obama 2009-2017 | H1N1 Pandemic Influenza
MERS
Chikungunya
Ebola
Zika
AMR |

Dr. Fauci always brought each EID back to NIH and what it could do through the investment in science:

NIH Countermeasure Research and Development

- Basic research
- Therapeutics
- Diagnostics
- Expansion of Research Capacity
- Clinical Research
- Genomics
- Vaccines

Advice to President-elect Trump:

- Partnering with the private sector is essential for the development of counter measures and products.
- Pharmaceutical partners should be brought in early; de-risking by completing the early research and clinical studies to help bring up the process closer to the end game then companies are more enthusiastic about coming in; moving from Phase I to Phase II will help take away the concerns over economic risks.
- Agility with regulatory flexibility – FDA is working closer with NIH and right from the start of a potential new product such as a new vaccine/therapeutic etc.
- Leverage resources – PEPFAR is a great success story to help get the needed infrastructure.

Wrap-up comments Dr. Ashish Jha:

- Pandemic prevention is the top priority.
- We can predict with confidence that EIDs will occur under the new Administration.
- Domestic/International must work together – there is no distinction – we live in a hyper connected world.
- Rely on tools of countermeasures and science and basic public health.
- We need a Public Health Emergency Fund.
- We need to engage with the private sector.
- Note: FEAR SPREADS FASTER THAN THE DISEASE.