

# POP SCIENCE



## Sustained Global Attention to Emerging Pandemic Threats and Risks:

### The need to strengthen One Health systems and Whole-of-Society preparedness

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Severe outbreaks of flu, SARS, Ebola, and other highly transmissible and fatal infectious diseases are major challenges to health and global security. For instance, the ongoing Ebola outbreak in West Africa, which has caused wide-scale socio-economic disruptions, is considered to be unprecedented in scope, severity and complexity. It has heavily impacted on livelihood, business, essential services and economic activities.

Because the risk and impacts of disease outbreaks can be very extensive and trans-boundary, the entire world is now seriously reconsidering how to best address the technical, political, socio-economic, environmental and security challenges they pose. These challenges obviously require holistic collaborative efforts and sustained pandemic prevention and preparedness initiatives. Lack of preparedness could result not only in massive loss of lives, but also in social devastation and unrest.

While the integration of human-animal-environmental health management systems for efficient infectious disease and zoonoses prevention, detection, containment and control is taking place through the One Health approach, integration of efforts needs to expand beyond the health systems.

#### Big questions the world faces today:

Why was there failure in prevention and early response at all levels in relation to the current Ebola crisis? What are the things we are not addressing adequately scientifically? Are we exerting needed efforts on all fronts? Is the global command and leadership structure sufficient, and is there funneling of efforts toward global good? Are funding organizations really supportive and are they driving the “best” global agenda? These challenges must be addressed not as individual nations, but as regional blocks and as a global community. The world needs assurance that prevention and preparedness efforts are commensurate to pandemic risk and potential impacts. In a holistic approach for global good or for inclusive benefit, no nation must remain more vulnerable and disadvantaged than others. We should demand for a beyond-health regional and global leadership that can sincerely work this out.

#### Actions for sustained global attention

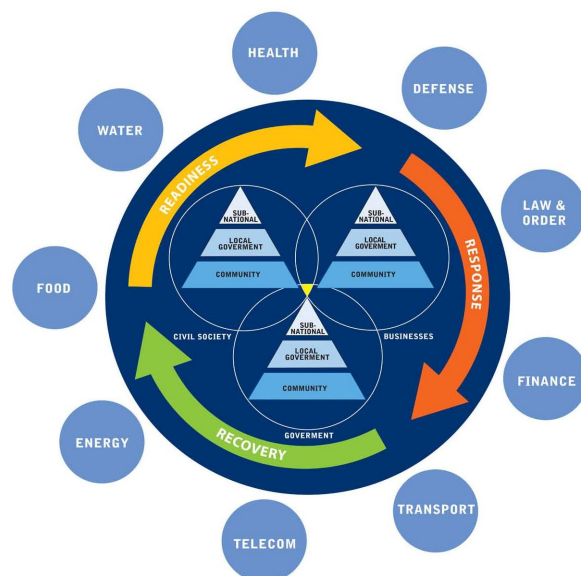
Clearly, the following focus areas for action deserve sustained global attention:

- 1) Prevention, early detection and containment or control of infectious disease outbreaks, including the institutional One Health structure and functions that will enable effective program formulation and implementation;
- 2) Whole-of-society pandemic preparedness and response planning; and
- 3) The strategic contextualization of the above within an integrative disaster-all-hazards risk and impact management framework and mechanism

The establishment of effective One Health Systems is pivotal to the advancement of the Global Health Security Agenda (2014), which is especially mindful of not just naturally occurring infectious disease threats, but also those intentionally produced or accidentally caused. The firm institutionalization of national One Health oversight requires strategic changing of mindset of leaders, civil servants and all actors involved in the building of society and communities. No discipline or sector should be marginalized and elimination of sectoral silos

should be achieved. Non-conventional approaches to cross-disciplinary learning must continue to be introduced- aiming to produce a Global One Health Workforce that can broadly manage One Health Systems at all levels.

The collective capacities of government, private sector, military, civil society, families, and individuals need to be harnessed through an integrative risk management and all-hazards multi-sectoral national platform and mechanism, encompassing One Health as a sub-platform. This remains as a strategic challenge, but one that seems to be most appropriate as most countries already have well-established and functional national platforms, e.g. a national all-hazards or pandemic and disaster risk reduction and management organization. In this regard, efficient national One Health sub-platform-dedicated leadership should be promoted. This could be one that is jointly assumed by the Ministries of Health, Agriculture and Environment. This integration of One Health and related systems into a broader platform recognizes the multi-faceted nature of disaster and pandemic risk reduction. The broader focus should include, among others, services disruptions; disaster risk and impact reduction; climate change adaptation; poverty reduction; terrorism; atrocities and armed conflicts; population displacement; social discrimination; and regressive governance, social, traditional, and agro-industrial practices. These could encompass the unitive promotion of robust community-based farming and marketing, development of appropriate



**The World Health Organization-United Nations**  
Effective multi-sectoral preparedness requires integrated planning for coordination of complex cross-sectoral interdependencies at all levels of society. Such whole-of-society cross-sectoral relationships are depicted in this Figure.

technologies, education to the poor, efficient land utilization and distribution, prevention of environmental degradation, peace and public security negotiations at all levels and angles, imposition of self-regulation, universal health coverage, etc.

***Advocating for continued and better targeted funding is the gist***

Funding is needed to strengthen national and regional capacities to immediately and effectively detect, prevent, and prepare for and respond to infectious disease/zoonosis outbreaks. Targeted initiatives must promote broad resilience objectives, cognizant that absolute efficiency of systems, especially in relation to mega disasters, is contingent on the interdependencies of sectoral approaches, and the capacity to enable strategic systems synergies. Of prime importance are the enabling of institutional mindset-change, whole-of-community mobilization, and enhanced integrative leadership, good governance and sectoral stewardship.

The case presented here should open the eyes of those who are in a position to make a difference. We need to see that this is about our ability as humanity to be sincerely driven to 'Think and Work as ONE' for our optimal health and wellbeing.



<http://www.deccanchronicle.com/140912/world-africa/article/ebola-death-toll-hits-2400-world-health-organization>