



United States Department of Agriculture

Veterinary Services

Global Health Security Agenda Joint External Evaluation Process

**4th International Biosafety & Biocontainment
Symposium:
Global Biorisk Challenges: Agriculture and
Beyond**
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Purpose of this Presentation

- Brief background on the GHSA/IHR
- To discuss the Joint External Evaluation (JEE) process:
 - the development,
 - implementation and
 - use of results in developing a Country Roadmap



West Nile Virus



Significant Disease
at Human-Animal
Interfaces



Monkeypox



SARS



MERS-CoV

Selected Diseases at Human-Animal Interfaces



H5N1, H1N1, H7N9 ... What's next?



Ebolavirus Ecology

Enzootic Cycle

New evidence strongly implicates bats as the reservoir hosts for ebolaviruses, though the means of local enzootic maintenance and transmission of the virus within bat populations remain unknown.

Ebolaviruses:

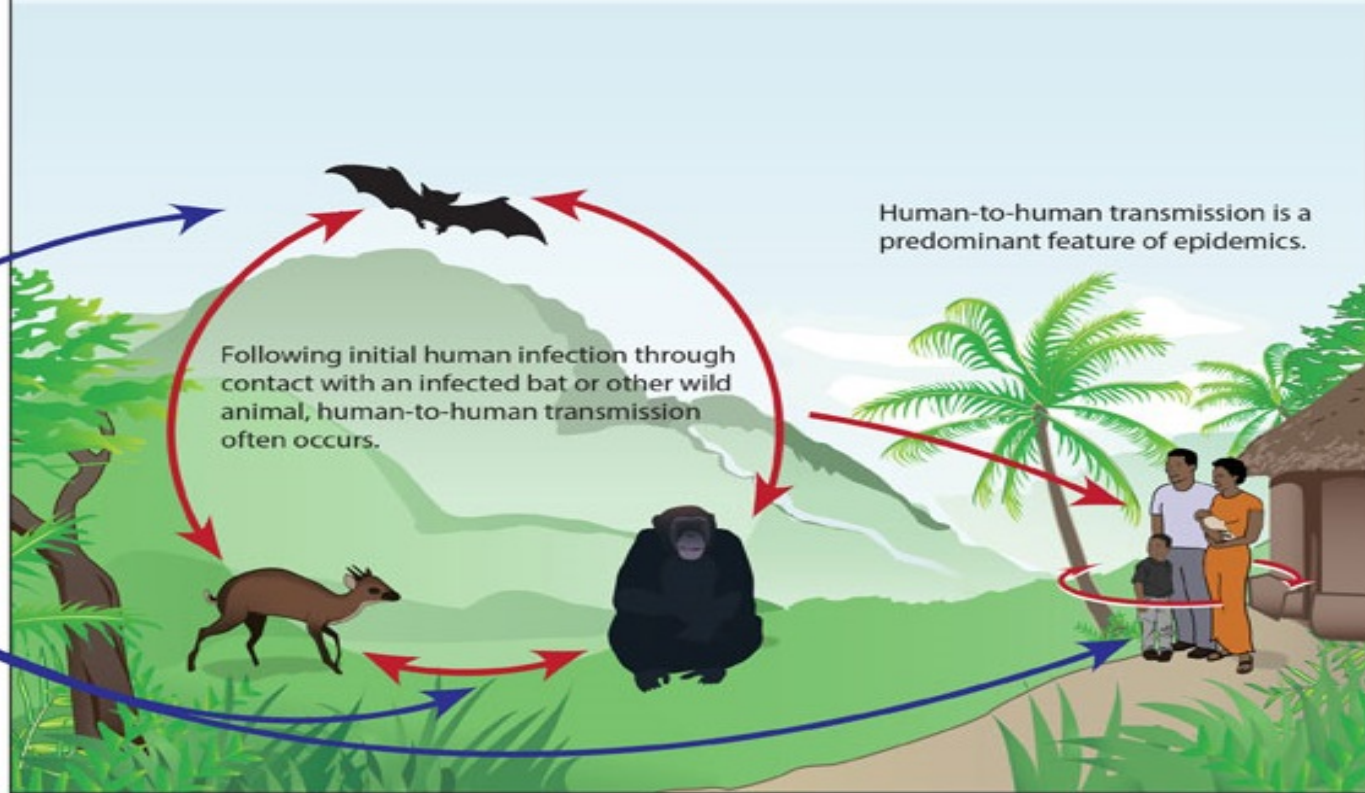
- Ebola virus (formerly Zaire virus)
- Sudan virus
- Tai Forest virus
- Bundibugyo virus
- Reston virus (non-human)



Epizootic Cycle

Epizootics caused by ebolaviruses appear sporadically, producing high mortality among non-human primates and duikers and may precede human outbreaks. Epidemics caused by ebolaviruses produce acute disease among

humans, with the exception of Reston virus which does not produce detectable disease in humans. Little is known about how the virus first passes to humans, triggering waves of human-to-human transmission, and an epidemic.



Human-to-human transmission is a predominant feature of epidemics.



GHS is a Wicked Problem





The Role of Agriculture in the Quest for Global Health Security



Action Packages*:

Making the goals and objective understandable and operational required the development of 11 action packages with input from multiple countries at 3 international meetings (Helsinki, the Hague and Jakarta).

- Antimicrobial Resistance Action Package
- Zoonotic Disease Action Package
- Biosafety and Biosecurity Action Package
- Immunization Action Package
- National Laboratory System Action Package
- Real-Time Surveillance Action Package
- Reporting Action Package
- Workforce Development Action Package
- Emergency Operations Centers Action Package
- Linkages and Multisectoral Rapid Response Action
- Medical Countermeasures and Personnel Deployment Action Package

USDA Roles and Responsibilities in Action Packages most important from a USDA perspective:

- Prevent 1: Antimicrobial Resistance Action Package
- Prevent 2: Zoonotic Disease Action Package
- Prevent 3: Biosafety and Biosecurity Action Package
- Detect 1: National Laboratory System Action Package
- Detect 2/3: Real-Time Surveillance Action Package
- Detect 4: Reporting Action Package
- Respond 1: Emergency Operations Centers Action Package

* See GHSA Action Packages 26 September 2014

ZOONOTICS

The zoonotic action package is squarely targeting animal populations, and should therefore be APHIS' primary GHSA emphasis area. It speaks to the need for training on both human and animal health topics and the animal expertise APHIS can bring to the table. APHIS' considerable expertise with zoonotic diseases can be leveraged; therefore, this action package should be the cornerstone for all APHIS involvement with the GHSA.

ANTIMICROBIAL RESISTANCE

As an action package, AMR is unique in that the U.S. has already developed and prioritized a domestic and international action agenda (outside of the GHSA) to make progress on issue. None-the-less, in that there is considerable international debate regarding the appropriateness of antibiotic use in food animal production, APHIS is obliged to weigh in on the animal component of this action package to ensure that the U.S. perspective is shared with developing countries.

NATIONAL LABORATORY SYSTEM

Via International Services, APHIS has always targeted the laboratories as an essential aspect of capacity building. Developing a country's laboratory infrastructure and disease detection and monitoring capabilities benefits both the country and the U.S. from a disease prevention and control perspective. In essence, to protect the U.S. from disease incursions, it pays to have our APHIS finger on the pulse of what is happening in the laboratories of other countries. Using the expertise garnered through establishing the NAHLN, APHIS can assist others in establishing a public and private laboratory network infrastructure that interfaces with the human lab system. In that the U.S. is the lead country for advancing this action package, APHIS must contribute to this initiative.

Biosafety and Biosecurity Action Package

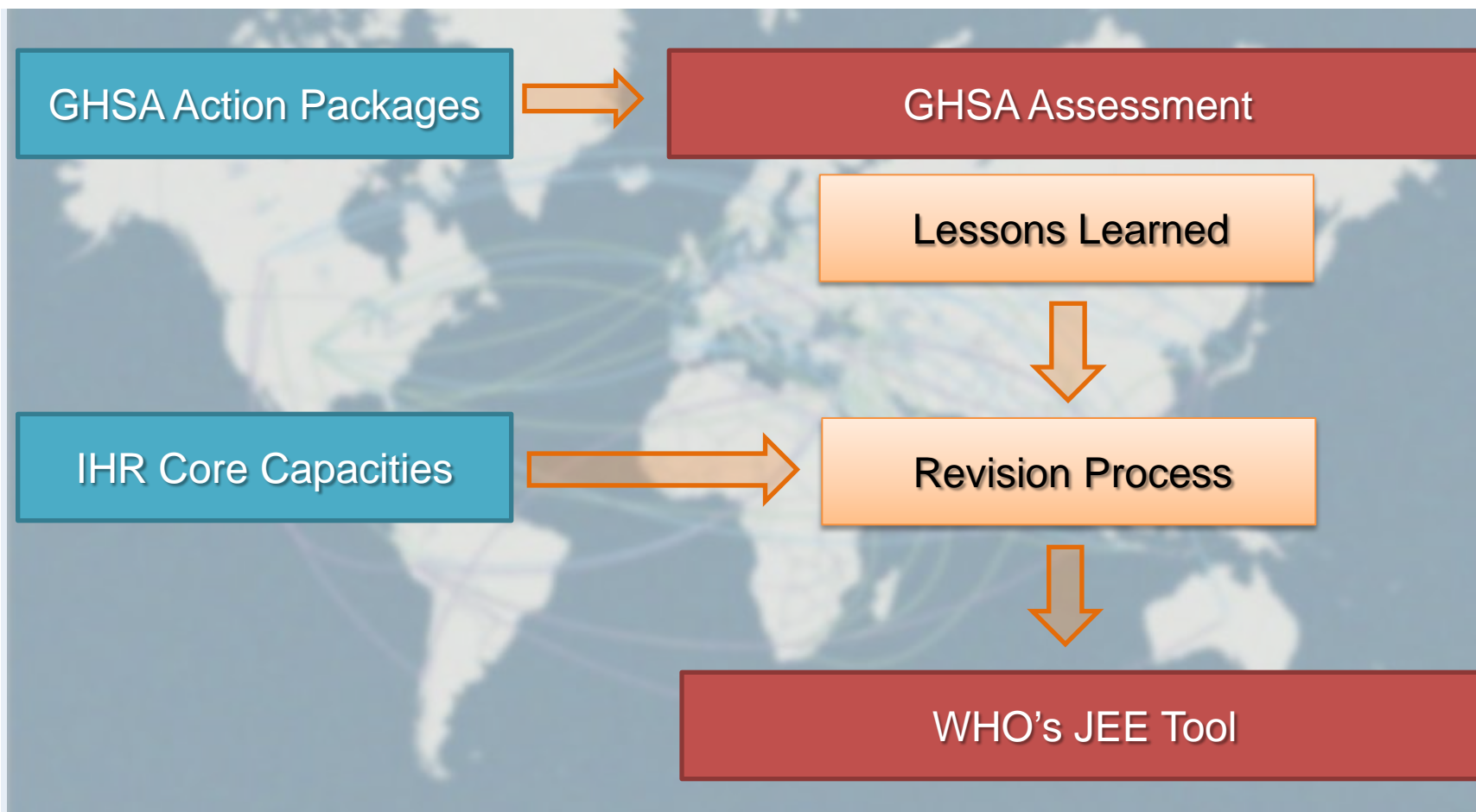
GHSA Action Package Prevent-3

- **Five-Year Target:** A whole-of-government national biosafety and biosecurity system is in place, ensuring that:
 - especially dangerous pathogens are identified, held, secured and monitored in a minimal number of facilities according to best practices;
 - biological risk management training and educational outreach are conducted to promote a shared culture of responsibility, reduce dual use risks, mitigate biological proliferation and deliberate use threats, and ensure safe transfer of biological agents; and
 - country-specific biosafety and biosecurity legislation, laboratory licensing, and pathogen control measures are in place as appropriate.

Joint External Evaluation (JEE)

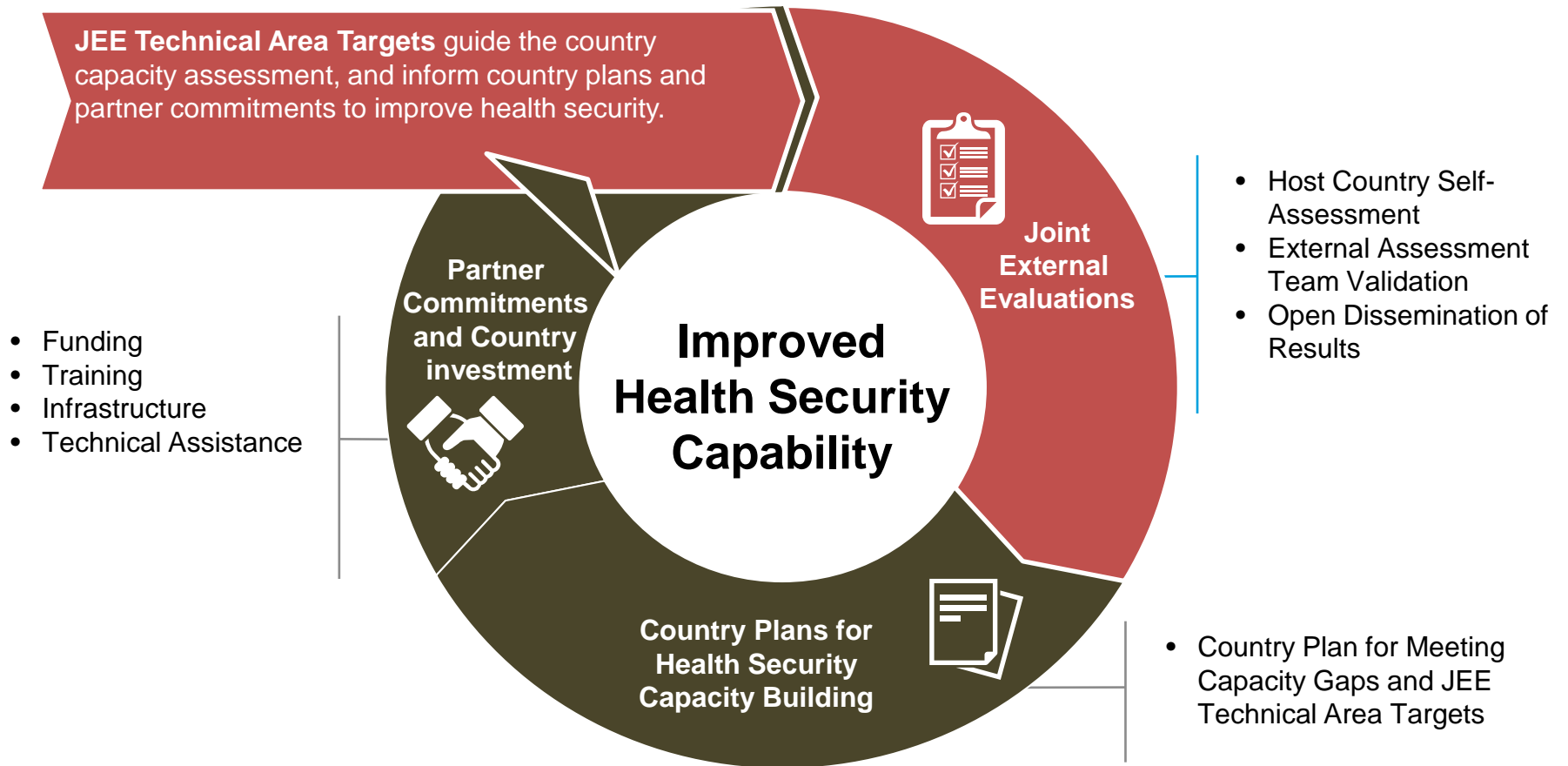
- On September 26, 2014, countries agreed that there was a need to be able to measure progress. A pilot tool was developed and several countries volunteered for the external pilot assessment process: Georgia, Peru, Uganda, Portugal, and the United Kingdom
- WHO then developed and launched in February 2016 the IHR Joint External Evaluation, which includes all elements of the GHSA assessment.
- So far, 28 countries have completed a JEE, 32 more are scheduled, and an additional 27 have expressed interest in undergoing a JEE.
- Countries undergoing JEEs have agreed to have their final reports published online.

Joint External Evaluation Tool



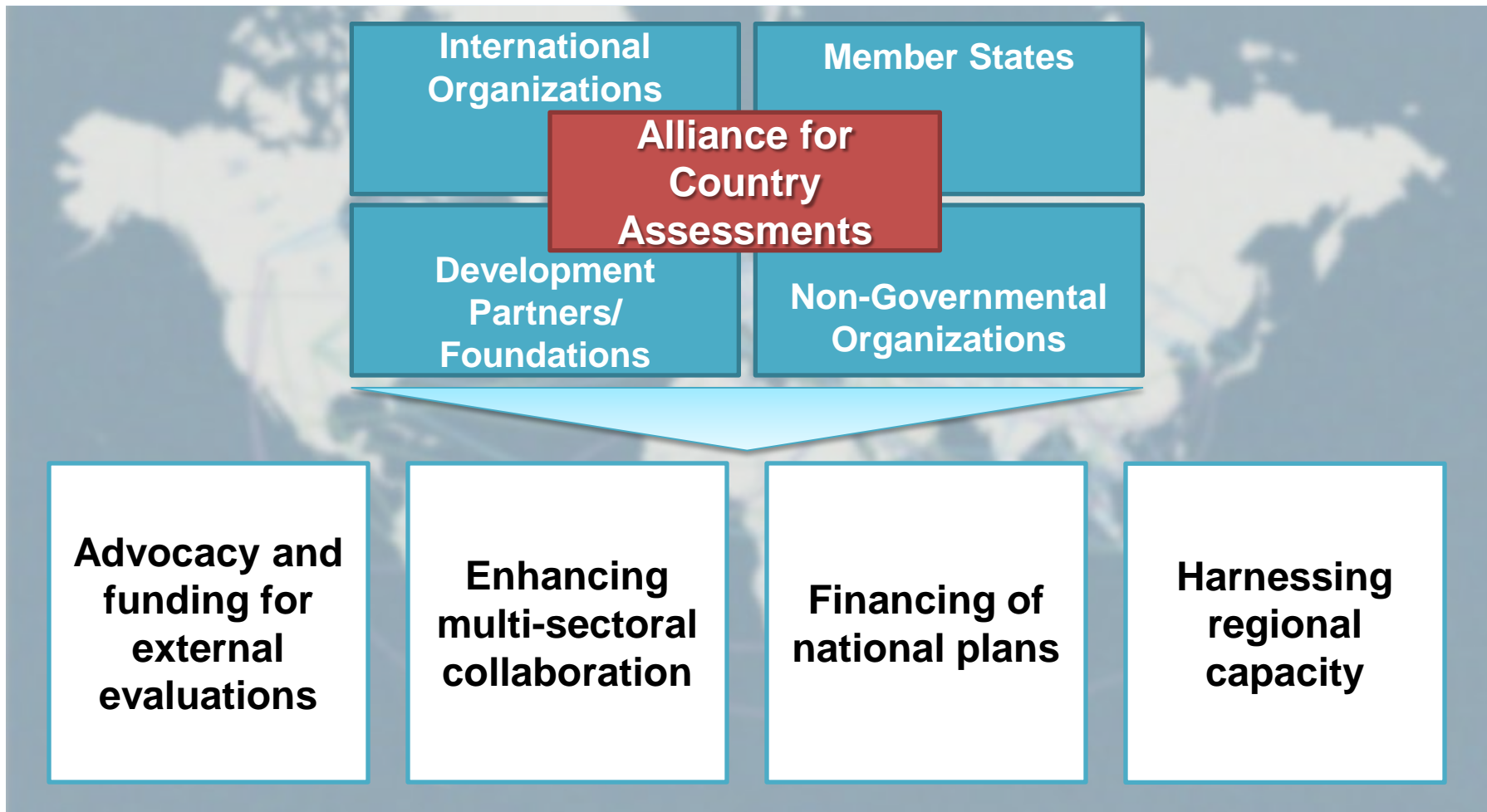
The GHSAs Tool formed the basis of and was replaced by the WHO's Joint External Evaluation (JEE) Tool as one component for IHR monitoring.

JEE Assessment and Investment Cycle



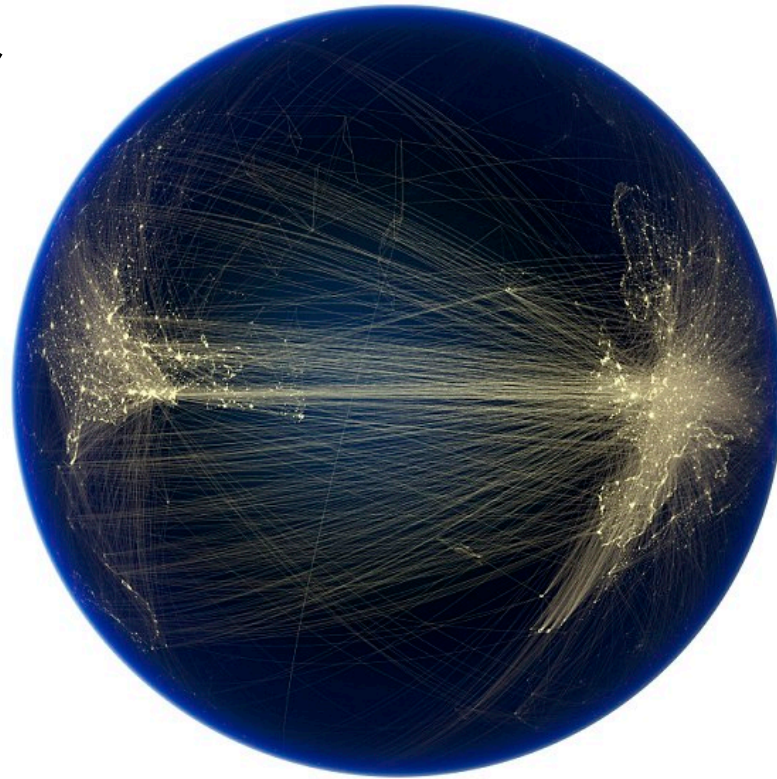
The process toward improving health security capacity requires continuous assessment of capabilities and (re)alignment of resources to address gaps.

The Alliance for Country Assessments



To sum it up - it takes a village

OIE
FAO
Academia
Industry
WHO
USDA
FDA and CDC



Extension
State Wildlife
Producers
Private Practitioners
Tribal Nations
State Public Health
State Veterinarians

Networks

Face-to-Face Collaborations

Virtual Connections

Partnerships

Summary

- ❑ As our food and agriculture systems become increasingly global and complex, the roles of food and agriculture experts, agencies and organizations will continue to be fundamental to success of GHS vision.
- ❑ USDA's One Health Joint Working Group is proving to be an effective model for intradepartmental coordination on the cross-cutting, complex challenges of global health security initiatives.
- ❑ International organizations like FAO and OIE will continue to be critically important for providing technical expertise, coordinating donors, and facilitating multilateral engagement for global health security.
- ❑ To keep our human population healthy, we need healthy animals.
- ❑ By joining forces with human health, by recognizing our common goals and interests and leveraging the intellectual and other resources available within the public health community, everyone wins.
- ❑ The GHSA and JEE are excellent mechanisms to ensure global partnerships to provide a world safe from infectious diseases.



Questions?

