## U.S. Engagement in International AMR Activities

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## The Federal CARB Task Force

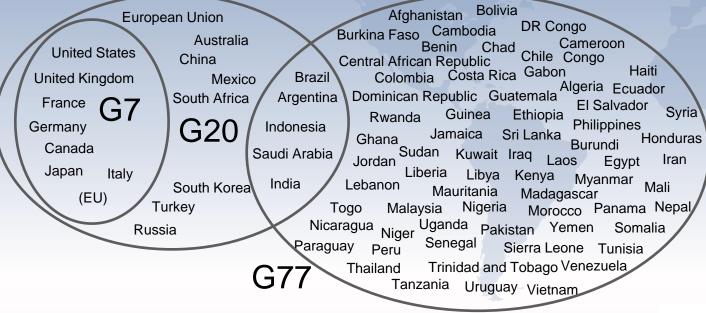


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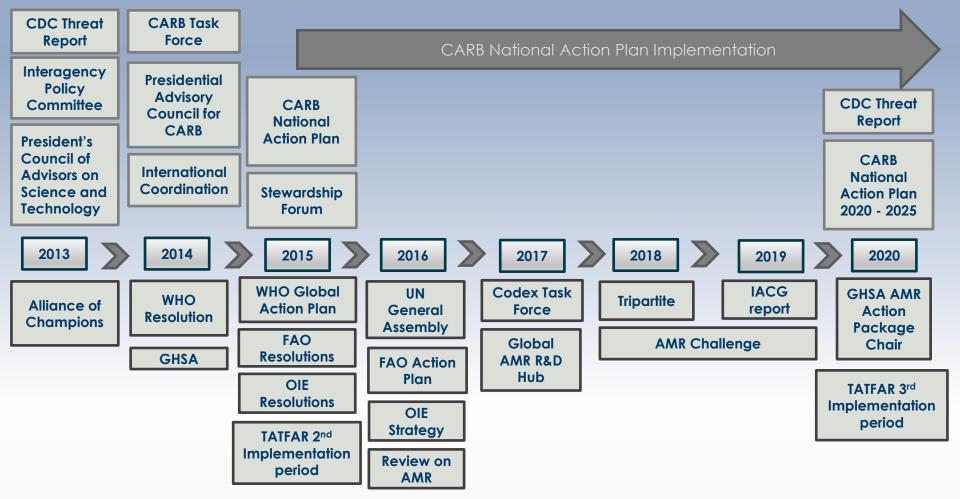
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## International agreements are often a long process, building up a coalition to take action





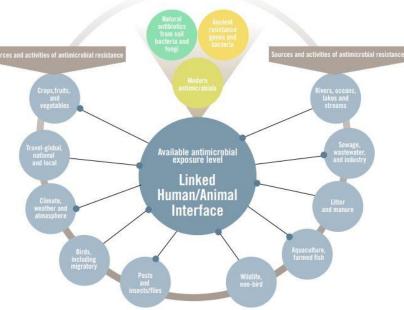
#### TIMELINE



## A One Health approach

The health of people, animals, plants, and the environment are connected

The CARB Task Force includes U.S. government agencies that oversee human, animal, and environmental health and promotes collaboration and communication The Collective Antimicrobial Resistance Ecosystem



## The National Strategy for CARB



Goal 1: Slow the Emergence of Resistant Bacteria and Prevent the Spread of Resistant Infections



Goal 2: Strengthen National One Health Surveillance Efforts to Combat Resistance



Goal 3: Advance Development and Use of Rapid and Innovative Diagnostic Tests for Identification and Characterization of Resistant Bacteria



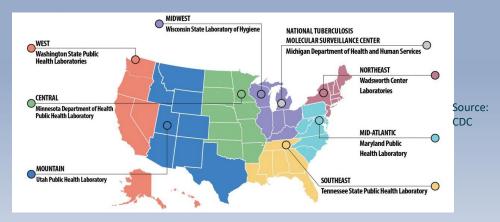
Goal 4: Accelerate Basic and Applied Research and Development for New Antibiotics, Other Therapeutics, and Vaccines



Goal 5: Improve International Collaboration and Capacities for Antibioticresistance Prevention, Surveillance, Control and Antibiotic Research and Development.

## Since 2015...

- New national Antibiotic Resistance Laboratory Network
- Strategic initiative to support antibiotic stewardship in veterinary settings
- New programs to improve antibiotic use across healthcare settings
- Biopharmaceutical accelerator, CARB-X
- Pursued alternatives to antibiotics in agriculture and human health
- Obtained hundreds of commitments to global action from a broad range of sectors and stakeholders





#### NIFA SUPPORTS BASIC AND APPLIED RESEARCH, EDUCATION, AND EXTENSION PROJECTS THAT:

- Determine the attributable risks caused by antimicrobial use in agriculture
- Create new and improved animal disease vaccines and diagnostic tests
- Identify strategies for controlling and mitigating the emergence and spread of AMR
- Explore alternatives to antibiotics

CARB-X Combating Antibiotic Resistant Bacteria

## Progress... but ongoing need

Still too many resistant infections and too many deaths

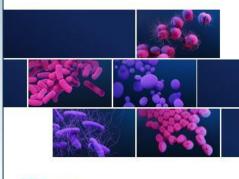
Some resistant infections are increasing, including community-acquired bacterial infections

New resistant pathogens emerge – e.g., Candida auris

Ongoing challenges with developing new antibiotic products

ANTIBIOTIC RESISTANCE THREATS IN THE UNITED STATES

2019





# Urgent Threats

- Carbapenem-resistant Acinetobacter
- Candida auris (C. auris)
- Clostridioides difficile (C. difficile)
- Carbapenem-resistant Enterobacteriaceae (CRE)
- Drug-resistant Nelsserla gonorrhoeae (N. gonorrhoeae)

#### Serious Threats

- Drug-resistant Campylobacter
- Drug-resistant Candida
- Extended-spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae
- Vancomycin-resistant Enterococci (VRE)
- Multidrug-resistant Pseudomonas aeruginosa (P. aeruginosa)
- Drug-resistant nontypholdal Salmonella
  Drug-resistant Salmonella serotype Typhi
- Drug-resistant Salmonella sei
  Drug-resistant Shigella
- Methicillin-resistant Staphylococcus aureus (MRSA)
- Drug-resistant Streptococcus pneumoniae (S. pneumoniae)
- Drug-resistant Tuberculosis (TB)

#### Concerning Threats

- Erythromycin-resistant group A Streptococcus
- Clindamycin-resistant group B Streptococcus

#### Watch List

- Azole-resistant Aspergillus fumigatus (A. fumigatus)
- Drug-resistant Mycoplasma genitalium (M. genitalium)
  Drug-resistant Bordetella pertussis (B. pertussis)
- U.S. Centers for Disease Control and Prevention

## CARB National Action Plan, 2020-2025

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The U.S. Government is committed to continuing the fight against antibiotic resistance.

https://aspe.hhs.gov/pdf-report/carb-plan-2020-2025

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## Recommendations



CARB Self Assessment

IACG Recommendations

GAO Report

PACCARB Recommendations

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Goal 5: Improve International Collaboration and Capacities for Antibiotic-resistance Prevention, Surveillance, Control, and Antibiotic Research and Prevention

- 1. Enhance U.S. leadership in the global fight against antibiotic resistance.
- 2. Promote increased awareness and capacity in countries to address the emergence and slow the spread of antibiotic resistance.
- 3. Generate consistent and actionable global data on antibiotic resistance, including by extending CDC's AR Lab Network to global sites to address the identification, emergence, spread, and effects of antibiotic resistance.
- Increase international collaborations to facilitate basic, translational, and clinical research into understanding the causes of antibiotic resistance and developing countermeasures.



Goal 5: Improve International Collaboration and Capacities for Antibiotic-resistance Prevention, Surveillance, Control, and Antibiotic Research and Prevention



- 1. Enhance U.S. leadership in the global fight against antibiotic resistance.
  - 1. Examine mechanisms for appointing a U.S. Federal Champion for International CARB, who would support the Secretaries of HHS, USDA, DoS, and the Administrator of USAID by advocating for U.S. policy positions on antibiotic resistance at international fora and organizations using a One Health approach, and who would report to the CARB Task Force to inform international engagements.
    - **Target:** Convene a working group of the CARB Task Force to define interagency needs and develop options for appointing a Federal Champion for International CARB by 2021. OGA, USDA, DoD, USAID

## Goal 5: Improve International Collaboration and Capacities for Antibiotic-resistance Prevention, Surveillance, Control, and Antibiotic Research and Prevention



- 1. Enhance U.S. leadership in the global fight against antibiotic resistance.
  - 2. Enhance engagements with multilateral organizations to support progress on U.S. priorities to combat antibiotic resistance.

**Target:** Support international antibiotic resistance policy efforts to prioritize and coordinate antibiotic resistance efforts within and across international partner organizations (e.g., FAO, the G7 and G20, the Asia-Pacific Economic Cooperation Forum, the Global Health Security Agenda, and the UN One Health Global Leaders Group on AMR) by 2022. OGA, DoS, USDA, USAID

**Target:** Chair the Global Health Security Agenda AMR Action Package by 2022. OGA

**Target:** Complete and implement the Work Plan of the Transatlantic Taskforce on Antimicrobial Resistance (TATFAR) for 2021-2025 and develop a new Scope of Work for TATFAR by 2021. ASPR/BARDA, CDC, FDA, OGA, USDA, NIH

## Global Health Security Agenda AMR Action Package (AP)

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## STRATEGIC OBJECTIVES

- Support the Global Action Plan on AMR and the associated work of the Tripartite Plus on AMR
- Support AMR efforts in the political space
- Provide guidance and share best practices to assist AP members in developing their capacity to address AMR

## U.S. 2021 Chair

- Focus on the International Health Regulations (IHR) and the results of the Joint External Evaluations
- Contribute to the WHO benchmarks for IHR
- Each member contributes one actionable item

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