USDA Antimicrobial Resistance (AMR) Plan

U.S. Department of Agriculture
February 2, 2015

Agenda

- USDA AMR 2012 Workshop
- USDA AMR Action Plan
- White House Initiatives
- Next Steps

USDA May 2012 Workshop

Objectives

- Review current antibiotic use and resistance monitoring

- Review management practices to reduce antibiotic resistance

- Review alternatives to the use of antibiotics

USDA partners

- APHIS, ARS, ERS, FSIS, NASS and NFIA

- Led by USDA One Health Working Group

Information Gaps Identified by Stakeholders: 2012 Workshop

1. Data Gaps

2. Communication Gaps

3. Defined Metrics

4. Funding Needs

Ways to Address Gaps Identified by Stakeholders

- Holistic approach considering entire microbiome
- Strengthen National Antimicrobial Resistance Monitoring System (NARMS)
- Strengthen National Animal Health Monitoring System (NAHMS)
- Conduct research via a long-term plan
- Conduct outreach and education

USDA AMR Action Plan

Goals:

- Obtain and disseminate science-based, quantitative **antibiotic drug use** information coupled with the development of **resistance** in food-producing animals and to relate this to livestock **management practices.**

- Address recognized knowledge gaps and develop effective, practical **mitigation** strategies that will help to **prolong the effectiveness of antibiotics** to treat both people and animals.

Objectives

Objective 1:   Determine and/or model patterns, purposes, and
impacts of antibiotic use in food-producing animals.

Objective 2:   Monitor antibiotic drug susceptibilities of
selected bacterial organisms in food-producing
animals, production environments, and meat and
poultry.

Objective 3:   Identify feasible management practices, alternatives
to antibiotic use, and other mitigations to reduce AMR
associated with food-producing animals and their
production environments.

Proposed Surveillance

Enhanced and expanded

- survey questionnaires

- longitudinal studies

- Measurement of antimicrobial drug use and related production practices by livestock and poultry producers

Approach

- Confidentiality protections for voluntary on-farm participation

  - Confidential Information Protection and Statistical Efficiency Act (CIPSE).

- Regulatory standards still apply for slaughter plant sampling under PR/HACCP

Proposed Research

- Alternatives
- Vaccines
- Feed, nutrition, genetic resistance
- Ecology
- Management practices
- Multi-institutional/multiagency projects that integrate research, education, and extension.

Proposed Education/Outreach

Support FDA and stakeholders in education and outreach programs for various audiences including veterinarians, producers, extension agents, academia, the media and the lay public.

White House Initiatives

- Executive Order

- National Strategy for Combating Antibiotic Resistant Bacteria (CARB)

- Report from the President's Council of Advisors on Science and Technology on Combating Antibiotic Resistance

National Strategy Goals

1. Slow the emergence and prevent the spread of resistant bacteria.
2. Strengthen national surveillance efforts to combat resistance.
3. Advance the development and use of rapid diagnostic tests for the identification and characterization of antibiotic-resistant bacteria.
4. Accelerate basic and applied research and development for new antibiotics as well as other therapeutics and vaccines.
5. Improve international collaboration, capacities for antibiotic-resistance prevention, surveillance, control, and antibiotic research and development.

Next Steps

- CARB Task Force
- 5-year National Action Plan
- Presidential Advisory Council
- International Goal 5

President's FY2016 Budget Fact Sheet:
http://www.whitehouse.gov/the-press-office/2015/01/27/fact-sheet-president-s-2016-budget-proposes-historic-investment-combat-a

USDA AMR Workshop:
http://www.fsis.usda.gov/wps/wcm/connect/9ddc0b9c-af04-4ed4-b959-b7799ddbfe11/USDA-Antibiotic-Resistance-Workshop-Summary.pdf?MOD=AJPERES

USDA AMR Action Plan:
www.usda.gov/antimicrobial.html

CARB National Strategy:
http://www.whitehouse.gov/sites/default/files/docs/carb_national_strategy.pdf