National Action Plan Goal 2
Antibiotic Data Collection in Food-Producing Animals
FDA Update

PACCARB Public Meeting
September 14, 2017

Goal 2 - Objectives

- (Objective 2.3) Develop, expand, and maintain capacity in vet and food safety laboratories to conduct standardized antibiotic susceptibility testing and characterize select zoonotic and animal pathogens.
- (Objective 2.4) Enhance monitoring of antibiotic-resistance patterns, as well as antibiotic sales, usage, and management practice, at multiple points in the production chain for food animals and retail meat.

Objective 2.3 – Expand Laboratory Capacity and Sampling

- Despite the lack of new resources, FDA has made some progress in expanding capacity of Vet-LIRN labs
  - Sequencing equipment was provided to two Vet-LIRN laboratories (one in 2016 and one in 2017) and there are now a total of four network laboratories that participate in a 2017 Vet-LIRN whole genome sequencing initiative
  - 20 Vet-LIRN laboratories are collaborating to obtain AMR data from clinical veterinary isolates – as of July 2017 (second quarter) over 850 samples have been tested.

Objective 2.4 – Enhance monitoring of resistance, sales, usage, management practices

PACCARB Recommendations*

- ***Ensure FDA funding for antibiotic surveillance.*** *FDA received increased funds for the retail meat NARMS program. However, funding for surveillance of other sectors was denied for FY 2016.*
- ***Ensure USDA funding for relevant on-farm surveillance activities.*** *Such funding was also denied for FY 2016. Given the time required to implement proposed field activities, the lack of funding will delay or prevent timely realization of NAP milestones.*

**From March 2016 initial assessment*

Objective 2.4 – Enhance monitoring of resistance, sales, usage, management practices

PACCARB Recommendations

- As noted by PACCARB, resource limitations have hampered efforts to enhance monitoring
- However, FDA will continue to leverage existing resources and programs, foster collaborations with other agencies, and seek opportunities for public-private partnerships

Objective 2.4 – Monitoring resistance trends

Important NARMS enhancements include:

- Number of retail meats tested was increased from 6,700 per year in 2015 to 17,280 per year in 2017
- Number of retail meat sites conducting tests to identify Enterococcus and E. coli increased from 4 sites to 11 and 9 sites, respectively
- All Salmonella and Campylobacter, select strains of Enterococcus and multi-drug resistant E. coli are now subjected to WGS and results are published at NCBI.
- 2014 NARMS Integrated Report published in November 2016 includes four interactive data dashboards

Objective 2.4 – Monitoring sales

- In May 2016, FDA published final rule regarding reporting requirements for antimicrobials sold or distributed for use in food-producing animals
  - Established new requirement for sales estimates for major food animal species
- In August 2017, FDA published a paper proposing the use of a biomass denominator to adjust annual data on the amount of antimicrobials sold or distributed for use in food-producing animals in the United States

Objective 2.4 – Monitoring usage

- Utilizing existing resources, FDA funded two cooperative agreements in August 2016
  - the awardees are developing and piloting methodologies to collect detailed information on on-farm antibiotic drug use in cattle, swine, chickens, and turkeys
- FDA continues to work in close collaboration with USDA's CEAH on strategies for collecting and reporting data on antibiotic usage


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