

Summary of Request for Information Responses

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PACCARB

Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria

Overview

PACCARB

Request For Information Responses (Responses Received April-June 2016)

Chair: Martin J. Blaser, M.D.

Vice Chair: Lonnie King, D.V.M.

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Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria

Question #1

Describe how organizations are influencing curricula regarding primary prevention (antibiotic stewardship, infection prevention, and control).

[Please include information about certification examinations, requirements, and continuing education, if relevant.]

- **Received 32 Responses**

Question #1 : Sample Responses (1)

- The most extensive efforts came from **medical societies, associations, and from their related journals.**
- **Hospitals and Clinics:** infectious disease specialists, pharmacists, and preventionists are currently educating staff through committee participation, in-house presentations, and institution-wide programs on antimicrobial stewardship, including appropriate prescribing.

Examples of useful practices:

- A policy effort involving requesting that a medical diagnosis or believed pathogen be written on the prescription.
- An institution reporting helping rural facilities develop antimicrobial stewardship programs.
- A hospital system has developed guidelines for prescribing, educational primers, and mandatory online physician education.

Question #1 : Sample Responses (2)

- **Food Production Industry:** report sector-wide education efforts around responsible management of animal health, including judicious and responsible use of antibiotics and application of federal guidelines.
- **Academic Institutions:** indicate that Antibiotic Stewardship and Infection Prevention are just beginning to take hold as formalized parts of curricula, thanks to state-based initiatives.

Example:

- The Antibacterial Resistance Leadership Group (ARLG) offers fellowships and other programs aimed at encouraging career development around antibacterial resistance clinical research.

Question #1 : Sample Responses (3)

Pharmaceutical Companies: currently educating pharmacists and prescribing physicians about appropriate use of products.

Other Issues Raised:

- Infection control and antibiotic stewardship principles should be **integrated** into current curricula as opposed to separate courses.
- Basic hygiene should be part of the standard curriculum in public schools (K-12).

Question #2

Describe how healthcare organizations can best:

(a) educate and provide feedback to providers in clinics/facilities about infectious diseases diagnostic testing, optimal antibiotic prescribing, and infection prevention.

[Where relevant, please include information about which incentives and disincentives these organizations have in place with the goal of improving antibiotic prescribing (e.g., using clinical decision support) and to prevent spread of resistant infections.]

(b) encourage and/or incentivize providers to report antibiotic use and resistance data for all patient populations.

- **Received 28 Responses**

Question #2: Sample Responses (1)

- While many respondents recommended specific tools, programs, and protocols, **others called for broad approaches through strong leadership and improved public awareness.**
- **Examples:**

For **education and feedback**, responses included the need for:

 - **Clinical decision support tools** to be effectively incorporated into electronic medical record systems.
 - **Feedback to providers** from insurers about: unusual or inappropriate antibiotic prescriptions, and pharmacy-generated retrospective reports on prescribing patterns across the system.
 - **Information sharing:** collaborative efforts among stakeholders around education, awareness, and infection control practices
 - **Laboratory monitoring** of values (including antibiograms) and markers to ensure appropriate use.

Question #2: Sample Responses (2)

- **Mechanisms** might include: instituting requirements to reporting to CDC's National Healthcare Safety Network (NHSN) and implementation of stewardship programs as a CMS Condition of Participation; levying fines for above-normal rates of Healthcare Acquired Infections (HAIs); and requiring health care institutions to pay for treatment of HAIs acquired during patient stays.
- **Current Disincentives** include:
 - lack of infrastructure to support reporting;
 - no clinician requirements;
 - no sense of urgency; and,
 - barriers to use of vaccines.

Question #2: Sample Responses (3)

- **To improve reporting:**

Examples:

- Share antibiotic resistance data locally and regionally.
- Create a national antibiogram, accessible regionally and locally (This will require standardization).
- Provide retail pharmacies with patient data, so they can assess the selection of antibiotics prescribed.

Question #3

Please provide examples of successful behavior change models that can be applied to preventive strategies, such as infection control and antibiotic stewardship.

- **Received 28 Responses**

Question #3: Sample Responses

- No one-size-fits-all model, “widespread successful behavior change in the more than 6,000 privately owned U.S. hospitals will only occur with national mandates.”
- Broad, **national approaches** were suggested, such as the need to stimulate and support training and improved career paths for Infectious Disease specialists-physicians and others in infection prevention.
- At the **institutional level**, there was continued emphasis on education and training of all staff (ranging from leadership to unlicensed personnel and trainees) about antimicrobial stewardship, infection control and prevention, and hygiene protocols. Measurable standards are needed.
- Approaches targeting **individual providers** tended to rely on peer communication and education, informed by individualized prescribing data gathered from pharmacy monitoring, chart review, or audits.

Question #4

Please provide information on the best ways to collect data on antibiotic use [and resistance] in animal agriculture through public-private collaborations.

[Your response can include information on the types of data to be collected, including the method of collection, and the metrics for reporting the data. If helpful, please cite sample models as examples to depict your answer.]

- **Received 18 Responses**

Question #4: Sample Responses (1)

- Representatives of the **food production industry and animal pharmaceutical manufacturers** stressed that proper approaches involve:
 - Collection of representative data
 - Representative sampling
 - Incorporating reliable and consistent metrics
 - Use of scientifically valid analyses
- Data collection must be **context-specific**, because farm practices and disease risk vary by species. Ideal systems should be **comprehensive and globally comparable**, with parameters that **facilitate human-animal comparisons**. There must be **adequate funding at the national level** for annual on-farm antibiotic use surveillance.

Question #4: Sample Responses (2)

Example:

- There was strong support for the National Animal Health Monitoring System and the National Antimicrobial Resistance Monitoring System (NARMS).
- **Advocacy Organizations and Associations** pointed out that participation should be mandatory, not voluntary, to avoid selection bias, and called for a national database, open to the public, and emphasized the need for data on antibiotic residues and resistance in the environment.

Question #5

Please provide information on the different resources that exist to promote the understanding of how antibiotics are being used in humans and animals in different parts of the world.

[Your response can include information on the types of support to connect with such resources, as appropriate (examples include public-private partnerships, strategic resourcing, or other means).]

- **Received 17 Responses**

Question #5: Sample Responses

- Most respondents referred to high-profile national, federal, and international organizations that are deeply involved in the topic of antibiotic use and resistance, such as **CDC, USDA, the WHO**, and prominent associations.
- The scope of resources ranged from consumer information sources to databases and white papers.
- Suggestions offered for providing information or addressing the issue of antibiotic overuse include:

Examples:

- Incorporate information into K–12 health education curricula.
- Place bilingual informational posters in health care settings.
- Conduct education sessions sponsored by state health departments.
- Provide reliable information through websites.