

More Than 150 Animal and Health Stakeholders Join White House Effort to Combat Antibiotic Resistance

As part of the continued effort to combat antibiotic resistance, today the Obama Administration is convening a “White House Forum on Antibiotic Stewardship” to bring together key human and animal health constituencies involved in antibiotic stewardship—the development, promotion, and implementation of activities to ensure the responsible use of antibiotics. As part of the event, more than 150 major food companies, retailers, and human and animal health stakeholders will announce commitments to implement changes over the next five years to slow the emergence of resistant bacteria and prevent the spread of resistant infections.

Private Sector Commitments:

Below is a list of formal commitments made by private sector leaders in an effort to improve antibiotic use and prescribing and slow the rise of antibiotic resistant infections that threaten modern medicine.

Hospitals, Health Systems, Long-term Care, and Pharmacies’ Commitments. Improving antibiotic prescribing practices in human medicine protects patients from unnecessary risk for preventable allergic reactions, resistant infections, and deadly diarrhea. Errors in prescribing decisions also contribute to antibiotic resistance, making these drugs less likely to work in the future. The companies below stand out, making some of the most significant commitments to address this challenge.

- **Anthem** will continue antibiotic stewardship programs focused on hospital acquired infection and evaluate appropriate use of antibiotics in acute respiratory tract infections.
- **Ascension Health** will, in addition to continuing current collaborations with CDC about this issue, establish facility-based antimicrobial stewardship programs in all Ascension hospitals and adopt [Core Elements of Hospital Antibiotic Stewardship Programs](#), submit antibiotic use and resistance data to CDC, plus regularly evaluate facility antibiograms (the result of a laboratory test for the sensitivity of an isolated bacterial strain to different antibiotics).
- **CareFusion** will develop electronic and clinical decision support tools to extend antimicrobial stewardship, expand the number of hospitals reporting antimicrobial use data to the CDC National Healthcare Safety Network Antimicrobial Use Module, provide an electronic and interactive Antimicrobial Resistance Map, and develop a pandemic sentinel system for persons monitored by public health.
- **Carolinas Medical Center** will, in addition to continuing current collaborations with CDC about this issue, implement antibiotic stewardship programs in all inpatient locations within three years, including requirement of antibiotic use reporting for skilled nursing facilities, and ambulatory care practices over five years, plus incorporate antibiotic indications and appropriate duration of therapy within electronic medical records.
- **CVS Health** will participate in a learning and diffusion exercise around best practices in antibiotic prescribing, explore specific studies together with CDC, and leverage media relations to support the reach of this program
- **Genesis Healthcare** will disseminate best practices from ten centers currently enrolled in a quality improvement project focused on reducing urinary tract infections and unnecessary antibiotic use, plus assign regional clinicians to evaluate resistance patterns within their region and regularly report to leadership for company-wide education and updates to staff and will provide resistance and antibiogram data to be produced, shared, and acted upon with individual lab providers at every center.
- **Hospital Corporation of America** will, in addition to continuing current collaborations with CDC about this issue, develop and implement new clinical decision support and real-time antibiogram tracking to rapidly respond to lab results, catch bug-drug mismatches, implement strategy to prevent health-care associated infections in adult intensive care unit patients, and strengthen national efforts to identify and report cases of antibiotic resistance.

- **Intermountain Healthcare** will, in addition to continuing current collaborations with CDC about this issue, reduce inappropriate outpatient antibiotic use for upper respiratory conditions by 50% by 2020, ensure all Intermountain Healthcare acute care hospitals have antimicrobial stewardship programs by the end of 2017, plus support telemedicine efforts to extend infectious disease expertise to rural healthcare settings.
- **Kaiser Permanente** will, in addition to continuing current collaborations with CDC about this issue, support antibiotic stewardship programs and guide prescribing practices for antimicrobials at every Kaiser Medical Center with electronic alerts, order sets, etc.
- **National Association of Chain Drug Stores** will integrate stewardship principles into existing programs that provide free or reduced price antibiotics to patients; will develop a new educational model on "using point of care tests in pharmacies to promote antimicrobial stewardship and combat antimicrobial resistance;" and will aim to examine the literature supporting outpatient antimicrobial stewardship programs, develop the requisite infrastructure for outpatient clinic and pharmacy stewardship programs, and convene member forums to disseminate the knowledge and showcase implementation of neighborhood stewardship programs.
- **Premier Healthcare Alliance** will be setting a measurable goal for this collaborative and sharing the goal at the Forum. In addition to assisting hospitals with implementing all aspects of an antimicrobial stewardship program, Premier will also be launching specific technology tools and collaboratives that target specific antimicrobial misuse issues.
- **The Evangelical Lutheran Good Samaritan Society** will partner with CDC to explore development of robust reporting mechanisms for infections and antibiotic prescribing in post-acute and residential senior care centers, provide educational support for residents, families, staff and provider partners highlighting quality and safety measures key to understanding and supporting prescribing of antibiotics and care practices to minimize harm from medication adverse events, overuse of antibiotics and preventable infections, and create and implement a comprehensive clinical guideline spanning all of the Society's service lines.
- **The Joint Commission** will include stewardship as part of onsite surveys.
- **TridentUSA Health Services** will expand education and lab services, including expansion of genetic testing for *C. difficile* and facility-specific antibiogram availability.

Pharmaceutical, Diagnostics, Vaccine, Hygiene, Data Companies. With better and faster tests, prescribers can get patients the right medicine at the right time when necessary. Information about the number of resistant pathogens at facility, state and national levels helps clinicians have a sense of what drugs are not working in their area. The companies below stand out, making some of the most significant commitments to address this challenge.

- **Accelerate Diagnostics** will sponsor studies on the role of rapid diagnostics and early antimicrobial de-escalation in hospitals, plus pursue the development and regulatory clearance of rapid diagnostic tests.
- **AdvaMedDX** will develop educational materials on the role of diagnostic tests in fighting antibiotic resistance, develop collaborative efforts to disseminate aforementioned educational materials to hospitals, clinicians, and public health professionals, and organize a Capitol Hill briefing to educate policy makers on how diagnostic tests fight antibiotic resistance.
- **Alere** will highlight the critical role that diagnostics play in effective antibiotic stewardship; publicly release educational materials on the use of rapid diagnostics in antimicrobial stewardship, including Continuing Medical Education accredited webinars; and complete a study on the acceptability, feasibility, barriers and challenges to use of specific, new, point of care tests in United States primary care settings.
- **AstraZeneca** will continue to work to collaborate on developing novel and efficient pathways for developing antibiotics. In particular, AstraZeneca is supporting stewardship and selection of the best drug for a given patient by piloting drug development study designs that show how a new antibacterial

agents will actually perform in unmet need settings as part of the overall regulatory approach for new antibiotics.

- **BD Diagnostics** will develop rapid carbapenem-resistant *Enterobacteriaceae* diagnostic tests, new antibiotics to test antibiotic susceptibility testing platforms, and molecular multidrug resistant-tuberculosis diagnostic test to simultaneously test patients for bacteria and resistance, and pioneer new ways to examine and reduce *C. difficile* healthcare-associated infections.
- **BioMerieux** will produce a real-time antibiotic surveillance system; collaborate to ensure next-generation sequence-based typing of pathogens to track patterns; create additional high-medical-value multiplex assays combining host resistance markers, pathogen detection and antimicrobial resistance markers to rapidly diagnose (within approximately 1 hour) the cause of an infection to more accurately tailor empiric and definitive therapy; and validate biomarkers that can differentiate bacterial from viral infections in large cohorts to determine best combination of markers in a single rapid diagnostic assay.
- **Merck/Cubist** will host an annual 2-day antibiotic stewardship research conference with a goal of improving the quality of antibiotic stewardship research and increasing evidence and knowledge around antibiotic stewardship best practices, undertake a 2-year collaborative project with CDC and Duke University to develop standardized patient safety outcome measures that are meaningful and practical for hospital antibiotic stewardship programs, as well as develop an outcomes assessment tool that can be implemented at acute care hospitals for antibiotic stewardship interventions.
- **OpGen** will use rapid tools to enable healthcare facilities and public health organizations identify, characterize, and track multi-drug resistant organism threats and infections; help form a public health surveillance network that identifies, tracks, and trends antibiotic resistance; and genetically characterize the antibiotic resistant bacteria to guide future drug development and optimal prescriptions of currently available antibiotics.

Clinical Societies: Health professionals look toward clinical societies to identify best practices and practical guidance for antibiotic stewardship efforts in their field. The organizations below stand out, making some of the most significant commitments to address this challenge.

- **Accreditation Council for Graduate Medical Education** will identify and disseminate targeted antibiotic stewardship information to faculty, residents, and fellows, reaching over 122,000 residents and fellows in over 9,500 programs in pediatrics, internal medicine, family medicine, surgery and more.
- **American Academy of Emergency Medicine** will assist with clinical practice guideline development for antibiotic use in emergency departments, development of position statements covering best practices in emergency care antibiotic stewardship, and development of emergency-department antibiotic use quality measures.
- **American Academy of Pediatrics** will dedicate an entire chapter to antimicrobial stewardship in the newly revised 2015 Red Book, publish articles and technical and promote educational efforts for physicians that amplify the messages from recent clinical guidelines and assist with communication about appropriate antibiotic use to patients and families.
- **American Dental Association** will provide appropriate scientific and clinical expertise to fully assess and respond to antibiotic healthcare issues, offer continuing education courses at profession meetings, and provide systematic reviews and current scientific information on the proper use of antibiotics in online resources.
- **American Hospital Association** will, addition to continuing current collaborations with CDC about this issue, work with stakeholders to share the latest information and resources on the appropriate use of antimicrobials through ongoing communications including webinars, online town halls, advisories and through AHA's web site.
- **American Medical Association** will issue a report on antimicrobial stewardship (fall 2015) and host an educational session on Antibiotic Stewardship at AMA's House of Delegates Interim Meeting.

- **American Medical Directors Association** will develop and deploy a training course for long-term care practitioners that include antibiotic stewardship and develop a quality prescribing campaign for medication safety that include a focus on antibiotic stewardship.
- **American Society of Consultant Pharmacists** will educate clinical staff using CDC's Core Elements of Antibiotic Stewardship for guidance, including tracking and reporting antibiotic prescribing patterns and committing to taking a leadership role in ensuring appropriate dissemination of information.
- **American Society of Health-System Pharmacists** will develop standardized pharmacy department antibiotic stewardship programs metrics, which can lead to higher-quality data to help improve outcomes.
- **American Society for Microbiology** will promote clinical decision support for infected patients and comprehensive antimicrobial stewardship while ensuring connectivity and rapid insights from the microbiology lab to the patient's bedside.
- **Infectious Diseases Society of America** will, in addition to continuing current collaborations with CDC about this issue, lead broad and robust stakeholder advocacy in support of antibiotic stewardship, implementation of stewardship programs in inpatient settings, measurement, and evaluation of stewardship efforts; promote research and development and appropriate use of diagnostics to guide stewardship; and promote stewardship in the outpatient setting and in the agricultural setting.
- **Pediatric Infectious Disease Society** will, in addition to continuing current collaborations with CDC about this issue, assure that adult-based hospitals that care for children have effective Antimicrobial Stewardship for their pediatric patients, plus support clinical studies to optimize antibiotic use in children.
- **Society for Healthcare Epidemiology of America** will, in addition to continuing current collaborations with CDC about this issue, encourage routine use of diagnostics in clinical settings and expanded access to new diagnostic technologies for all patients, assist CDC to promote national and regional AR surveillance efforts, including regional lab network.
- **Society of Hospital Medicine** will, in addition to continuing current collaborations with CDC about this issue, create a Society of Hospital Medicine Behavior Change (Awareness) Campaign to enhance hospitalists' awareness of key antibiotic use best practices and ask them to formally commit to at least two behavior changes to reduce inappropriate antimicrobial use and reduce antimicrobial resistance.
- **Society of Infectious Diseases Pharmacists** will expand their Antimicrobial Stewardship Certificate Program for Pharmacists.

Non-profits and Foundations – Non-profit organizations and foundations play a critical role in advocating and supporting innovative changes in practice related to antibiotic use and antibiotic resistance. The organizations below stand out, making some of the most significant commitments to address this challenge.

- **ABIM Foundation Choosing Wisely Initiative with Consumer Reports** will operate a grant program in which more than 20 participating health systems, hospitals, and medical groups will work toward a goal of reducing their utilization of antibiotics to treat viral infections in adults.
- **Alliance for Aging Research** will create and distribute health education materials (e.g., pocket films) for seniors and family caregivers, initiate stewardship programs, and launch a public policy effort to require long-term care setting reporting of healthcare-associated infections to the CDC.
- **Alliance for the Prudent Use of Antibiotics** proposes multiple commitments to support the goals of the National Action Plan, including the development of a unique "one health curriculum on prudent antibiotic use" to be included in Tufts Medical and Veterinary school curricula.
- **NACDS Foundation** will evaluate the impact of the innovative neighborhood pharmacy antibiotic stewardship model in at least 10 states by the end of 2016 and create opportunities for Collaborative Practice Agreement-based outpatient, neighborhood pharmacy stewardship programs in all U.S. states and territories.

- **The Pew Charitable Trust** will, in addition to continuing current collaborations with CDC about this issue, invest in research and support policy development in three main areas: actionable national goals for antibiotic use reduction, stewardship in all settings, and spurring drug development.

Veterinary Medicine: Veterinary professionals look toward clinical societies to identify best practices and practical guidance for antibiotic stewardship efforts for food and companion animals. The organizations below stand out, making some of the most significant commitments to address this challenge.

- **American Animal Hospital Association** will collaborate with corporate entities (Banfield Pet Hospital, VCA Veterinary Referral and Emergency Centers, National Veterinary Associates) to explore measurement of impact of stewardship on use/application of AAHA guidelines by practicing vets.
- **Banfield Pet Hospital** will collaborate to create or update guidelines for the profession on best practices for antibiotic usage in companion animals.

Food Producers and Retailers. Food makers are taking actions such as voluntarily phasing out the use of medically important antibiotics for growth promotion, providing responsible use guidelines to suppliers from whom they purchase meat, and funding research for alternative management practices that reduce the need for antibiotics. Some store owners are committing to purchase from suppliers who already have or are phasing out the use of medically important antibiotics or that can provide them with antibiotic-free meat and poultry.

- **Bell & Evans** continues to show leadership in raising chickens without the use of any type of antibiotics, which they discontinued the routine use of in 1998.
- **Cargill** will study the impact of removing antibiotics used for growth promotion from their turkey supply chain, last year and is applying their knowledge from this experience to study the impact of similar steps with other in species.
- **Costco** supports the regulatory position on dual use antibiotics with a goal of working with the regulators, Costco suppliers, and antibiotic suppliers to limit or eliminate antibiotics in the food supply. Costco will publish a story in its membership magazine to educate consumers about the clinical and agricultural uses of antibiotics.
- **Foster Farms** this year is beginning to emphasize preventative flock health programs, proper nutrition, and advanced husbandry practices to protect and preserve the effectiveness of antibiotics, while ensuring the welfare of their chicken flocks. Foster Farms will only treat chickens that have a documented microbial disease or for disease control as dictated by a veterinarian, and will never use antibiotics critically important for human medicine.
- **McDonald's** will establish principles and criteria for antimicrobial use; develop field projects to serve as Centers of Innovation (that is, demonstration farms) for each species in an effort to demonstrate the benefits of judicious antimicrobial use; and develop methods to verify judicious antimicrobial use and establish goals for measuring progress.
- **Panera Bread** has extended its raised without antibiotics protein offerings to include roasted turkey, smoked chicken, breakfast sausage, ham and bacon. Purchasing livestock and poultry that have been raised responsibly, which for Panera means having been fed vegetarian-based and customized diets without the use of antibiotics, and raised in reduced-stress environments. Today, all of chicken, ham, roasted turkey, and breakfast sausage in salads and sandwiches meet their standard.
- **Tyson Foods, Inc.**, as will, intends to eliminate the use of human antibiotics from its U.S. broiler chicken flocks by September, 2017. Tyson Foods will also be working with independent farmers and others who are a part of Tyson's beef, pork, and turkey supply chains on ways to reduce antibiotics on cattle, hog and turkey farms.
- **Smithfield** has already acted and today prohibits the use of medically important antimicrobials for production purposes (growth promotion and feed efficiency) in their animals and has initiated a partnership this year with the Virginia Tech College of Agriculture and Life Sciences and at the Virginia-Maryland College of Veterinary Medicine, in part, to investigate alternatives to antibiotics and other methods to enhance animal well-being and production efficiency in swine-rearing operations. Smithfield

is providing meaningful, accurate measurement on antibiotic use information to the public on its website and has robust training programs for its employees on antibiotic use.

- **Walmart** is asking suppliers to adopt and implement the Judicious Use Principles of Antimicrobial Use from the American Veterinary Medical Association (AVMA) including accurate record-keeping, veterinary oversight, and limiting antimicrobial treatment to animals that are ill or at risk.

Consumer & Patient Advocates. Educating consumers and patients about when antibiotics work empowers them to play a central role in their health. The groups below stand out, making some of the most significant commitments to educate and empower the public.

- **Consumers Union/Consumer Reports** will publish a three-part series in Consumer Reports magazine dedicated to antibiotic resistance with each part devoted to a different aspect: (1) drugs, (2) hospitals, (3) food system; to be published in second half of 2015.
- **Medscape/WebMD** will continue to cover the topic of antibiotic resistance and stewardship extensively with news, expert commentaries, and Questions & Answers with experts and organizations.
- **National Consumer Voice for Quality Long-Term Care** will develop new consumer educational materials targeting nursing home residents and family caregivers and host a Facebook “chat” on the subject.
- **What to Expect Foundation** will add/revise information regarding appropriate antibiotic use in the “What to Expect” book series, as well as on the “What to Expect” website, plus share updated information with parents through “What to Expect” blogs, social media, and other online content.

Animal Pharmaceutical Industry Organization. Organizations are working with veterinarians and feed mill operators to ensure swift and seamless adoption of FDA regulations recommendations for all medicated feed to come under the oversight of licensed veterinarians. Education and outreach to veterinarians and farmers on the new rules is imperative to implementing an effective veterinary oversight system.

- **The Animal Health Institute** will work with stakeholders, including veterinarians and feed mills, to ensure they understand new FDA judicious use guidance. In addition, AHI and member companies, along with generic manufacturers, have all pledged to make the changes to labels for 287 approved animal drug applications to enact the FDA judicious use policy. When complete (target end of 2016), medically important antibiotics will be used in food animals only to fight diseases under the supervision of a veterinarian.

Animal Pharmaceutical Companies. Companies are committed to align their medically important antibiotic products with FDA’s recommendations, including removing antibiotics for growth promotion uses and changing marketing status to require veterinary oversight of product use. Further, the companies are investing in vaccines, best management practices, on-farm hygiene, and proper nutritional innovations that will benefit animal health while lessening the reliance on traditional antibiotics.

- **Elanco Animal Health** will dedicate two-thirds of their food animal research budget to attack disease challenges where shared class antibiotics are used routinely because few or no alternatives exist today. Elanco commits to quickly evaluate 25 new technology platforms to deliver 10 viable development candidates within the next year.
- **Merck Animal Health** developed a commercial surveillance program to monitor multi-drug resistant bacteria, across the live animal, beef, and dairy production. The outcome of this investment is expected to be a program that can be implemented by veterinarians to understand the pathogens present, throughout the animal’s lifecycle, and to make protocol recommendations that are based on actual pathogen populations, and their relative susceptibility. By implementing this potential surveillance program, veterinarians will be able to provide targeted, responsible treatments with antibiotics and other therapeutics when needed.
- **Zoetis** committed to place administration of medically important antibiotics under the direct purview of a veterinarian for the purpose of fighting disease - eliminating growth promotion claims. Along with this

commitment, Zoetis will work directly with veterinarians and livestock producers to implement these important changes to how our products are utilized in food producing animals.

Animal Feed Industry Organizations and Livestock and Poultry Farmers. These entities are educating producers and ranchers about the FDA labeling changes that will bring all feed uses of medically important antibiotics under the oversight of licensed veterinarians. These educational campaigns are helping to make farmers aware of antimicrobial stewardship programs and keeping them updated on best practices for antimicrobial use and policy.

- **The National Grain and Feed Association** and its feed industry member companies will develop compatible education, communications and outreach efforts to assist FDA's efforts in informing customers and animal producers about FDA's antimicrobial judicious-use policies and potential intervention steps, as well as alternatives to antimicrobial use or more effective antimicrobial use.
- **The American Feed Industry Association** will be conducting at least two webinars for veterinarians and feed producers on the FDA's Veterinary Feed Directive (VFD) and develop and distribute a practical guide to VFD compliance to educate members on the correct use of these newly-controlled animal drugs, as part of the stewardship of these important medicines.

Veterinary Education Organizations. Educational leaders have established a task force on antimicrobial resistance to focus on what the nation's colleges of veterinary medicine and colleges of agriculture can do in the areas of research, education, and extension to prevent antimicrobial resistance and preserve the efficacy of medically important antibiotics.

- **The American Association of Veterinary Medical Colleges** and the **Association of Public and Land-grant Universities** formed a Task Force on Antibiotic Resistance in Production Agriculture. The Task Force is charged with developing an action plan to combat antibiotic resistance consistent with the strengths and expertise of APLU and AAVMC members in research, education, and outreach.
- **The American Veterinary Medical Association** will implement an educational outreach campaign on judicious therapeutic use of antimicrobials in animals, including greater veterinary oversight to assist in compliance with FDA guidances and regulations.

Livestock and Poultry Farmers. Producer organizations are conducting education and outreach campaigns to make farmers aware of antimicrobial stewardship programs and keeping them updated on best practices for antimicrobial use and policy.

- **National Cattlemen's Beef Association** is committed to working with FDA and its membership to support the implementation of FDA Guidance for Industry (GFI) [#209](#) and [#213](#) to bring the medically-important antibiotics used in feed and water under veterinary oversight and to eliminate the use of these drugs for feed efficiency and growth promotion by December 2016. NCBA also plans to remain actively engaged in conversations with FDA and the United States Department of Agriculture (USDA) for discovering the best methods to measure and the best metrics to evaluate antibiotic use in animal agriculture.
- **National Chicken Council** supports FDA GFI #209 and #213, and recognizes the responsibility of the industry to implement the recommendations to phase out the use of medically important antibiotics in food animals for growth enhancement. NCC also supports the FDA's Veterinary Feed Directive, which will ensure that all antibiotics administered to food producing animals are only done so under the care and prescription of a licensed veterinarian and will work with USDA to define metrics for success, and to pursue further research in the area of antibiotic resistance and antibiotic alternatives.
- **National Milk Producers Federation**, through its 2016 edition of the *Residue Prevention Manual* (to be published October 2015), will continue its commitment to the judicious and responsible use of antimicrobials. Additionally, the 2016 edition will include a focus on antimicrobial stewardship.
- **The National Pork Board** will make antimicrobial use and resistance a top research priority in the Board's 2016 budget. This commitment will augment past studies of interventions and alternatives with

the goal of reducing the need for antibiotics share research findings and develop educational materials for more than 60,000 pork producers and the academic and swine veterinarian community.

- **The National Pork Producers Council** is committed to providing its members and all pork producers information about the implementation of FDA GFI #209 and #213 and the revised Veterinary Feed Directive rule. NPPC will utilize a wide range of communications platforms to inform pork producers about regulatory changes required by the guidance and encourage them to implement changes within their farming operations. The Council also will work with the USDA to help identify appropriate antibiotic use data that can be collected. The organization also will work with USDA to identify appropriate antibiotic use data that can be collected.
- **National Turkey Federation** will work toward the following: (1) elimination of growth promoting antibiotics as required by FDA FGI #213; (2) data collection that accurately reports the use of antibiotics in turkeys in a manner that promotes a balanced assessment of the benefits and risks from such use; and (3) research into alternative products or practices that may enable reduced use of medically important antibiotics in turkeys.

Veterinary, Animal Agriculture, and Meat Associations. Are developing and updating species-specific judicious use guidelines, conducting education campaigns on judicious use, and encouraging data collection efforts. The organizations are also committed to magnifying education outreach efforts through their vast networks by distributing educational material, holding symposiums to bring those in public health and agriculture together, and conducting regional workshops on new antibiotic use and veterinary oversight policies.

- **The American Association of Bovine Practitioners** has developed a portfolio of documents which include Judicious Use Guidelines for Antimicrobial Drugs, Establishing and Maintaining the Veterinarian-Client-Patient Relationship in Bovine Medicine and Drug Use Guidelines for Bovine Practice. These documents are intended to educate AABP members on uses of antimicrobial products which minimize the development of antimicrobial resistance.
- **The American Association of Swine Veterinarians** will continue to participate in the development and distribution of educational materials focusing on the judicious use of antimicrobials; dedicate resources to furthering the understanding of antimicrobial use in swine medicine and its impact on antimicrobial resistance in humans and animals; support research efforts to assess the impact of antimicrobial use in pork production and develop effective alternative strategies and tools.
- **The American Association of Avian Pathologists** will commit resources of AAAP membership to education of poultry production, poultry farmers and the poultry community as a whole to the need for judicious use of antimicrobials; as well as encourage research members to develop research programs to help identify areas in the production of poultry meat and eggs that can contribute to reducing the need for antimicrobial use and to finding methods to minimize antimicrobial resistant bacteria on the farms.
- **The National Association of State Departments of Agriculture** will continue education, communication, and collaboration efforts between veterinary and public health practitioners, clients and their patients, the animal health industry and the general public to address ongoing concerns related to antimicrobial resistance.
- **Federation of Animal Science Societies** is a professional association that represents the combined membership of the **Poultry Science Association**, **American Society of Animal Scientists** and the **American Dairy Science Association** along with other societies. FASS commits to sharing science-based resources related to antimicrobial resistance throughout its membership of approximately 10,000 members.
- **National Association for the Advancement of Animal Science** will share resources related to antibiotic resistance that will reach thousands of scientists, extension professionals and students across the nation.
- **The North American Meat Institute** supports ongoing and future research for therapeutic options and further understanding how antimicrobial resistance is developed and transmitted among humans,

animals, and other living organisms. The NAMI Foundation is committed to continuing to work with USDA to develop actionable research priorities in the area of antibiotic use and resistance.

General Agriculture, Food System Non-government Organizations. These non-governmental organizations are conducting education and outreach and developing standards with an accompanying verification program for the judicious use of medically important antimicrobial drugs in food producing animals.

- **The Farm Foundation** will conduct 10 regional stakeholder workshops on the implications of antimicrobial resistance for the animal agriculture industry.
- **School Food Focus** will reach out to the top thirty-five poultry producers in the country, all producing at a scale that can serve entire school districts and explore with their districts ways to open and expand procurement pathways to more sustainably produced meat – both Certified Responsible Antibiotic Use (CRAU) Standard-certified and No Antibiotic Ever – from large and mid-sized producers. They will also be working with other institutional procurement change networks – notably Healthcare Without Harm – to adopt the CRAU standard in their group purchasing efforts to access more sustainably produced meat for both patient and cafeteria meals.

Call to Action, Comprehensive Commitment.

There is more work to be done to strengthen nationwide antibiotic stewardship programs and tracking of antibiotic use, get faster and better tests to better tailor treatment, and understand the drivers of antibiotic resistance. Combating antibiotic resistance and improving antibiotic use requires commitments across a variety of sectors and disciplines. Below is a comprehensive list of companies and organizations that have committed to help thwart the public health and national security threat posed by antibiotic resistant bacteria.

All Committed Organizations

AARP	American Association of Swine Veterinarians	Association of American Veterinary Medical Colleges
Abbott/Ibis Biosciences	American College of Physicians	Association of Public and Land-grant Universities
ABIM Foundation (Choosing Wisely)	American College of Veterinary Preventive Medicine	Association of Public Health Laboratories
Accelerate	American Dental Association	Association of State and Territorial Health Officials
Accreditation Council for Graduate Medical Education	American Feed Industry Association	AstraZeneca
Achaogen	American Health Care Association and the National Center for Assisted Living	Banfield Pet Hospital
Actavis	American Hospital Association	BD Diagnostics
AdvaMedDX	American Medical Association	Bell & Evans
Advancing Excellence in Long-Term Care Collaborative	American Medical Directors Association	BioMerieux
Alere	American Osteopathic Association	Cargill
ALK-Abello	American Public Health Association	CareFusion
Alliance for Aging Research	American Society for Microbiology	Carolinas Medical Center
Alliance for the Prudent Use of Antibiotics	American Society of Consultant Pharmacists	Center for Disease Dynamics, Economics & Policy
America's Essential Hospitals	American Society of Health-System Pharmacists	Cepheid
American Academy of Emergency Medicine	American Veterinary Medical Association	Clinical and Laboratory Standards Institute
American Academy of Family Physicians	Animal Health Institute	Clorox Company
American Academy of Pediatrics	Anthem	Consumers Union/Consumer Reports
American Academy of Physician Assistants	Ascension Healthcare	Costco
American Animal Hospital Association	Association for Professionals in Infection Control and Epidemiology, Inc.	Council of State and Territorial Epidemiologists
American Association of Avian Pathologists	Association of American Medical Colleges	CVS Health/Minute Clinic
American Association of Bovine Practitioners		Elanco Animal Health
American Association of Nurse Practitioners		Farm Foundation
		Federation of Animal Science Societies
		Foster Farms

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Galderma Laboratories	National Association of Directors of	Reckitt-Benckiser
Genesis Healthcare	Nursing Administration in Long Term	Safe Care Campaign
GOJO	Care	Sanofi Pasteur
George Washington University Milken	National Association of State	School Food Focus
School of Public Health Antibiotic	Departments of Agriculture	Shionogi
Resistance Action Center	National Association of State Public	Smithfield
Hospital Corporation of America	Health Veterinarians	Society for Healthcare Epidemiology of
IMS Health©	National Cattlemen's Beef Association	America
Infectious Diseases Society of America	National Chicken Council	Society of Hospital Medicine
Intermountain Healthcare	National Consumer Voice for Quality	Society of Infectious Diseases
JBS	Long-Term Care	Pharmacists
Johns Hopkins Medicine	National Grain and Feed Association	The Evangelical Lutheran Good
Johnson & Johnson	National Milk Producers Federation	Samaritan Society
Kaiser Permanente	National Pork Board	The Joint Commission
McDonald's	National Pork Producers Council	The Pew Charitable Trusts
Medscape/WebMD	National Quality Forum	Theravance BioPharma
Melinta	National Turkey Federation	TridentUSA
Merck/Cubist	Nile's Project	Trust for America's Health
Merck Animal Health	North American Meat Institute	Tyson
NACDS Foundation	OpGen	University of Pennsylvania Health
Nanosphere	Panera Bread	System
National Association for the	PDI Healthcare	VCA Pet Hospitals
Advancement of Animal Science	Pediatric Infectious Disease Society	Volunteer Hospital Association
National Association of Chain Drug	Peggy Lillis Foundation	Walgreens/Take Care Clinics
Stores	Perdue	Walmart
National Association of County and	Premier Healthcare Alliance	What to Expect Foundation
City Health Officials	Procter & Gamble	Zoeti