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Statement of
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On behalf of the
American Academy of Pediatrics

Interagency Task Force on Antimicrobial Resistance public meeting:

“An Update of A Public Health Action Plan to Combat Antimicrobial Resistance”
Good afternoon. I appreciate this opportunity to provide comments before the Interagency Task Force on Antimicrobial Resistance regarding antimicrobial resistance and children’s health. My name is Clara Filice, MD, MPH, MHS, FAAP, and I am proud to represent the American Academy of Pediatrics (AAP), a non-profit professional organization of 60,000 primary care pediatricians, pediatric medical sub-specialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults. I am the Pediatric Environmental Health and Food Policy Fellow in the Academy’s Department of Federal Affairs.

**Antimicrobial Resistance: A Growing Threat to Children’s Health**

Antimicrobial resistance (AR) is a growing public health crisis with serious implications for child health. Many of the pathogens that cause common infections in otherwise well children, like ear infections, skin infections, and urinary tract infections, are now resistant to previously effective antibiotics. Vulnerable children with chronic disease, acute illnesses, or severe trauma requiring hospitalization or care in neonatal or pediatric intensive care units are at heightened risk for infections with resistant organisms, including those that are resistant to multiple classes of antibiotics. Antimicrobial-resistant infections in all children can lead to serious, potentially life-threatening, consequences.

The burden of antimicrobial-resistant disease in children is compounded by the already limited treatment options available to children. When antibiotics known to be safe and effective in children fail, health care providers are forced to use other treatment options that may be more toxic or less effective. Furthermore, antimicrobial-resistant infections place an additional burden on ill children, their families, and the health care system as a whole – they are often more costly to treat, prolong health care use, and can increase morbidity and mortality.1-3

Given the significant threat of antimicrobial resistance faced by infants, children, adolescents and young adults, the American Academy of Pediatrics appreciates the opportunity to comment on the work of the *Interagency Task Force on Antimicrobial Resistance* (Task Force) and its proposed action blueprint *A Public Health Action Plan to Combat Antimicrobial Resistance* (Action Plan).

**Improved Surveillance will be Critical to Identifying Sources of Antimicrobial Resistance and Targeting Prevention and Control Measures**

The AAP applauds the Task Force’s proposed goals to improve surveillance, including by developing and implementing a coordinated national plan for AR surveillance, ensuring the availability of reliable drug susceptibility data for surveillance, monitoring patterns of antimicrobial drug use, and monitoring AR in agricultural settings to ensure a safe food supply while protecting animal, plant, and human health.
When considering how to best develop a coordinated national surveillance plan, the AAP urges the Task Force to draw from and improve upon experiences and deficiencies in existing surveillance programs. For example, the National Antimicrobial Resistance Monitoring System (NARMS), established in 1996 to monitor the occurrence of antimicrobial resistant zoonotic pathogens in retail meats, food-producing animals, and humans, is a valuable resource. However, NARMS could be significantly improved to provide better data to identify, respond, and prevent antimicrobial resistance.

First, NARMS is administered across three separate federal agencies: the United States Department of Agriculture, the Centers for Disease Control and Prevention, and the Food and Drug Administration, and each agency collects different data on different microbial agents. The AAP strongly recommends that a coordinated national surveillance plan promote consistent data collection across agencies and domains. Furthermore, while NARMS has expanded publicly-available information regarding antimicrobial resistance, much information on antimicrobial use in animal agriculture remains unavailable to the health care community and the public – for instance, what amounts and types of antibiotics are used, routes of administration, species of animal receiving antimicrobial agents, and doses and durations of therapy. The AAP urges the Task Force to promote surveillance activities that expand upon the quality and quantity of data collected about antimicrobial use in all domains, and these data should be made available to scientists and the public.

**Prevention and Control Efforts Must be Multifaceted**

The AAP supports the Task Force’s mission to extend the useful life of antimicrobial drugs through appropriate use policies that discourage overuse and misuse. The AAP has taken a leadership role in promoting appropriate and judicious use of antimicrobial agents in human medicine, with the dual aims of decreasing unnecessary toxicity and preventing selection and spread of resistant organisms.\(^4\) The principles for appropriate use of antimicrobial agents, combined with infection-control programs, have become a central focus of measures to combat development and spread of resistant organisms among humans. Due to these and other efforts, the prescription of antibiotics to children has decreased in the past two decades.\(^5,6\)

The Academy also strongly supports the Task Force’s stated goal to prevent and control emerging AR problems in not only human medicine, but also in agriculture and veterinary medicine. Antimicrobials are widely used in food animal production in the United States, accounting for a majority of all antimicrobials sold annually.\(^7-9\) In food animals, antimicrobials are used for both therapeutic (treatment and control of disease) and non-therapeutic (prevention, feed efficiency, and growth promotion) purposes, often without the oversight of a veterinarian. Any use of antimicrobials in animals, particularly non-judicious use, can lead to the development of antimicrobial resistant organisms that can be
spread to humans through the food supply or through occupational and environmental exposures. Infants and children are at increased risk of morbidity and mortality from infection with antibiotic-resistant foodborne organisms as well as from bacteria acquiring resistance indirectly from environmental reservoirs related to food-animal production.

The Academy believes all antibiotics administered to food-producing animals should be under the guidance of a licensed veterinarian to ensure they are used in accordance with current veterinary science. Non-therapeutic uses of antibiotics, including production and preventive uses, should be eliminated to protect public health.

**Research on Antimicrobial Resistance Should Identify and Consider the Needs and Vulnerabilities of Pediatric Populations**

The Academy supports the Task Force in its aims to increase understanding of microbial physiology, ecology, genetics and mechanisms of resistance; augment the existing research infrastructure to support a critical mass of researchers in AR and related fields; and translate research findings into clinically useful products, such as novel approaches to detecting, preventing, and treating antimicrobial resistant infections. The Academy urges the Task Force to emphasize consideration of the needs and vulnerabilities of neonates, infants, children and young adults as such research is conceived of and conducted.

**Antimicrobial Product Development that Benefits Pediatric Populations Should be Promoted**

The Academy strongly supports proposed efforts to encourage product development that enhances capacity to diagnose, prevent, and treat infections. There are not currently enough new antimicrobial drugs in the research and development pipeline to meet projected current and future demand for pediatrics. Children are at special risk because they are already underrepresented in research investigating the treatment and prevention of disease. Ensuring researchers and drug manufacturers are informed of current and projected gaps in antimicrobial drugs, vaccines, and diagnostics – including through identification of needed pediatric interventions – will benefit the current and future health of children.

The Academy also promotes use of alternative veterinary drugs and related agricultural products that may reduce the development and transfer of antimicrobial resistance to humans. Research exploring novel approaches that ensure animal health and optimize production is needed, and agricultural producers should be encouraged to transition to current and emerging alternative products, practices, and agricultural systems that reduce the need for antibiotic use.

In conclusion, the American Academy of Pediatrics appreciates this opportunity to provide comments on the work of the Interagency Task Force on Antimicrobial Resistance and its
proposed action blueprint, *A Public Health Action Plan to Combat Antimicrobial Resistance*. Consumers, pediatricians, public health, and federal agencies should take steps to institute universal judicious use of antibiotics, promote better infection control, and eliminate unnecessary use of antibiotics in humans as well as in animals. By preserving the effectiveness of current antibiotics and delaying development of antibiotic resistance, more time will be available for development of new preventive and therapeutic strategies. Preserving life-saving antibiotics for pediatric patients is critical to the current and future health of our nation. I appreciate the opportunity to present these comments on behalf of the Academy, and would be pleased to answer any questions you may have.


