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June 28, 2018

Dear Food and Drug Administration Commissioner Gottlieb,

We, the undersigned, are concerned about the high level of antibiotic-resistant bacteria being detected in supermarket meat.

EWG released a new analysis today of the most recently available Retail Meats data collected by the National Antimicrobial Resistance Monitoring System.¹ In response to our previous analysis in 2013, the FDA claimed² our findings were alarmist and oversimplified. Your agency also stated bacteria resistant to one, or even a few, antibiotics shouldn't be called superbugs. Since then, "antibacterial resistance has reached alarming levels" according to the World Health Organization,³ to the point that it calls this issue a "serious threat to global public health."

Our findings were prescient, not alarmist. In the five years since our original analysis, not much has improved, but some things have gotten worse. Three in four bacteria found on grocery store meat were resistant to at least one of the 14 antibiotics tested.⁴ There was an increase in the already high number of pork chops and ground beef contaminated with antibiotic-resistant bacteria (71 percent of pork and 62 percent of beef, respectively), while levels on ground turkey and chicken remained high (79 percent of turkey and 36 percent of chicken), but saw slight declines.⁵

Over the last five years of available data, on average, one in five strains of salmonella⁶ found on grocery store chicken were resistant to amoxicillin, a type of penicillin. Amoxicillin is the number one prescription drug given to children each year.⁷ The WHO designates amoxicillin, and penicillins as a class, as "critically important antibiotics" for use in human medicine.⁸ Penicillins as a class are also the second-most-used type of antibiotics in food animals.⁹ This practice needs to stop. Last year, the WHO released recommendations for countries to adopt antibiotic use policies that limit the use of medically important antibiotics in animal agriculture.¹⁰

"Development of antibiotic resistance is a major public health problem," said Dr. Gail Hansen, a veterinarian and public health consultant. "Bacteria transfer their antibiotic-resistance genes to other bacteria they come in contact with in the environment and in the gastrointestinal tracts of people and animals, making it very difficult to effectively treat infections."

"Antibiotics are a shared societal trust," said Dr. Brad Spellberg, chief medical officer at Los Angeles County and University of Southern California Medical Center, and associate dean for clinical affairs at the Keck School of Medicine at the University of Southern California. "When one person or group misuses antibiotics, they cause resistance to the

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antibiotics to spread, hurting everyone in society.” (The opinion expressed is Spellberg’s and does not represent Los Angeles County or the University of Southern California.)

The WHO has also created a high priority pathogen list,¹¹ covered extensively by the press as the “WHO’s most dangerous superbugs list,”¹² that includes fluoroquinolone-resistant *Campylobacter*. EWG analyzed FDA data, and of the 577 *Campylobacter* isolates found on chicken tested in 2015, 107 were of the superbug variety – or nearly one in five isolates.¹³ In the case of multidrug-resistant salmonella, there was a statistically “significant increasing trend in resistance to at least 3 classes of drugs” in the percent of ground turkey isolates testing positive with it.¹⁴ These facts demonstrate, that there are alarming and growing numbers of superbugs in supermarket meat.

Voluntary guidance is not enough. The public shouldn’t have to wait until 100 percent of the bacteria found on meat on supermarket shelves are untreatable by antibiotics before the FDA takes strong action. If the FDA waits for this serious threat to become a true national health crisis, the FDA will have been negligent in its mission of “protecting the public health ... by ensuring the safety of our nation’s food supply.”¹⁵

EWG strongly encourages the FDA to take more aggressive action in preventing this widespread health concern from becoming a national health crisis.

In the meantime, EWG’s Tips to Avoid Superbugs in Meat¹⁶ provides consumers with food safety information and other helpful tips to help them navigate a world teetering on the brink of a “post-antibiotic era.”¹⁷

Best,
Dawn Undurraga, MS, RD

Nutritionist
Environmental Working Group

¹ NARMS Data. Retail Meats, 2015. Available at www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialResistanceMonitoringSystem/UCM458659.xlsx

² FDA Cautions in Interpretation of Antimicrobial Resistance Data. Available at wayback.archive-it.org/7993/20170113142126/http://www.fda.gov/AnimalVeterinary/NewsEvents/CVMUpdates/ucm348794.htm



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³ Antimicrobial Resistance: Global Report on Surveillance. Geneva: World Health Organization, 2014. Available at www.who.int/drugresistance/documents/surveillancereport/en/

⁴ In 2015, 75 percent of the bacteria found on tested retail meat samples – or 2,748 out of 3,668 – were resistant to at least one of the antibiotics tested. Breakpoints from www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialResistanceMonitoringSystem/UCM453387.pdf

⁵ Supermarket Meat Still Superbugged, Federal Data Show. Environmental Working Group, 2018. Available at www.ewg.org/research/superbugs/

⁶ EWG calculations based on data drawn from the National Antimicrobial Resistance Monitoring System 2015 Integrated Report published Oct. 23, 2017.

⁷ Grace Chai et al., Trends of Outpatient Prescription Drug Utilization in US Children, 2002–2010. 2012.

⁸ WHO, Critically Important Antimicrobials for Human Medicine. 5th revision, 2016, Geneva: World Health Organization, 2017. Available at www.who.int/foodsafety/areas_work/antimicrobial-resistance/cia/en/

⁹Not including ionophores. Table 2a. 2016 Summary Report on Antimicrobials Sold or Distributed for Use in Food-Producing Animals. U.S. Department of Health and Human Services, Food and Drug Administration, Center for Veterinary Medicine. Available at www.fda.gov/downloads/ForIndustry/UserFees/AnimalDrugUserFeeActADUFA/UCM588085.pdf

¹⁰ WHO guidelines on use of medically important antimicrobials in food-producing animals. Geneva: World Health Organization, 2017. Available at www.who.int/foodsafety/publications/cia_guidelines/en/

¹¹ Global Priority List of Antibiotic-Resistant Bacteria to Guide Research, Discovery, and Development of New Antibiotics. Geneva: World Health Organization, 2017. Available at www.who.int/medicines/publications/global-priority-list-antibiotic-resistant-bacteria/en/

¹² Bruce Y. Lee, Here's What's On The WHO's New Most Dangerous Superbugs List. Forbes. Available at www.forbes.com/sites/brucelee/2017/02/28/who-is-on-the-whos-new-most-dangerous-superbugs-list/

¹³ EWG calculations based on data drawn from the National Antimicrobial Resistance Monitoring System Data. Retail Meats, 2015. Available at www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialResistanceMonitoringSystem/UCM458659.xlsx

¹⁴ Statistical Tests of Resistance Trend. NARMS 2014 Trend Analysis. Available at www.fda.gov/downloads/AnimalVeterinary/SafetyHealth/AntimicrobialResistance/NationalAntimicrobialResistanceMonitoringSystem/UCM529799.pdf



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¹⁵ What We Do. U.S. Department of Health and Human Services, Food and Drug Administration. Available at www.fda.gov/aboutfda/whatwedo/default.htm

¹⁶ Tips to Help You Avoid Superbugs in Meat. Environmental Working Group, 2018. Available at static.ewg.org/ewg-tip-sheets/EWG_Superbugs-2018_C01.pdf

¹⁷ Antimicrobial Resistance: Global Report on Surveillance. Geneva: World Health Organization, 2014. Available at www.who.int/drugresistance/documents/surveillancereport/en/

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