

Documented and Potential Human-Health Issues Related to Animal Feeding Operations

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The Centers for Disease Control and Prevention (CDC) is involved in evaluating the impact of concentrated animal feeding operations (CAFOs) and animal waste on public health. Increasing attention is being paid to these issues due to the growth and consolidation of the farming industry. This presentation reviews the human-health issues surrounding animal waste by focusing on specific pathogens, the problem of antibiotic resistance, recent CDC investigations, and implications for animal-waste management. Infectious agents found in animal waste include bacteria, protozoa, and viruses. Toxins associated with animal waste include nitrates and components of aerosols, as well as algal toxins. Sub-therapeutic antibiotic use in livestock has contributed to the development of antibiotic resistance among bacteria with domestic-animal reservoirs. These resistant bacteria pose a threat to human health. CDC has participated in studies of water quality and antimicrobial resistance in bacteria around CAFOs in Ohio and Iowa. Preliminary results indicate the presence of antibiotic-resistant bacteria in some surface-water samples from these sites. Future development of policies on manure management and antibiotic use in animals should include consideration of the public-health implications, with recommendations based on rigorously collected scientific data. Federal and State agencies should work together with academic institutions and industry to set research agendas and conduct scientific studies that address these issues.

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