



Minnesota One Health Antibiotic Stewardship Collaborative



Year One Activity Summary

July 1, 2016–June 30, 2017

Amanda Beaudoin, Director of One Health Antibiotic Stewardship

Vision. Minnesota leaders in human, animal, and environment health will work together to raise awareness and change behaviors to preserve antibiotics and treat infections effectively (antibiotic stewardship, AS).

Foundations of Communication.

- Human, animal, and environmental health are inseparable, and antibiotics are a shared resource.
- All antibiotic use leads to resistance, and all sectors have an impact.
- Lack of “scientific proof” of harm and greater abuse in other disciplines is not an argument for injudicious use.

National Reach.

- Minnesota hosts a quarterly call to discuss One Health antibiotic stewardship initiatives. Nine states, Centers for Disease Control and Prevention (CDC) and Association of State and territorial Health Officials (ASTHO) participate.
- We have shared Minnesota’s approach at numerous national, state, and local conferences.

Collaborative Work Group Chairs.

- **One Health Engagement:** Sara Vetter, Minnesota Department of Health, Public Health Laboratory
- **Human Antibiotic Stewardship:** Ayesha Rashid, St. Paul Infectious Disease Associates
- **Animal Antibiotic Stewardship:** Beth Thompson, Executive Director Board of Animal Health, State Veterinarian
- **Antibiotic Footprint:** Kimberly Boeser, University of Minnesota Medical Center (UMMC)

Collaborating Minnesota Institutions.

<i>Human Health</i>	
<ul style="list-style-type: none"> • Abbott Northwestern Hospital • Allergan, Chief Medical Office • Emergency Physicians PA • Health Partners • Hennepin County Medical Center • Infectious Disease Associates Saint Paul • Leading Age • Mayo Clinic • Merck • Minneapolis Veterans Affairs Healthcare System 	<ul style="list-style-type: none"> • Minnesota Board of Pharmacy • Minnesota Dental Association • Minnesota Department of Health • Minnesota Hospital Association • Park Nicollet • Regions Hospital • Sanford Health Clinics • Stratis Health • United Health • University of Minnesota
<i>Animal Health</i>	
<ul style="list-style-type: none"> • Board of Animal Health • Board of Veterinary Medicine • Minnesota Cattleman's Association • Minnesota Department of Agriculture • Minnesota Milk • Minnesota Pork Board 	<ul style="list-style-type: none"> • Minnesota Turkey Growers • Pipestone Veterinary Clinic • Rock Veterinary Clinic • United States Department of Agriculture • University of Minnesota • Zoetis
<i>Environmental Health</i>	
<ul style="list-style-type: none"> • Minnesota Department of Natural Resources • Minnesota Pollution Control Agency 	<ul style="list-style-type: none"> • University of Saint Thomas • University of Minnesota

2016–2017 Successes and Next Steps.

Promote understanding of One Health antibiotic stewardship across disciplines

Successes:

- First One Health AS Exchange held at UMMC
- Website improved and updated regularly with news, events, resources
- Monthly bulletin has 400 recipients, including human and animal health professionals, public, legislators, state and federal public health
- New collaborative antibiotic resistance research proposed by Public Health Laboratory and Veterinary Diagnostic Laboratory

Next Steps:

- State Fair exhibit in Eco Experience building to answer public questions about antibiotics
- Next One Health AS Exchanges to be held in September at a dairy farm in September and a waste water treatment plant in December 2017
- Collection of antibiotic prescribing and use stories to share by website, email, social media
- Addition of a “For Educators” tab on website
- AHC research award for professional, grad students

Improve human antibiotic stewardship

Successes:

- Statewide AS honor roll for acute care and critical access hospitals ready for July launch
- “AS Gap Analysis” tool for hospitals developed, promoted, posted online
- Dental antibiotic-use fact sheet developed
- Relationships formed in this group have led to success in MDH’s core AS efforts, including long-term care facility and outpatient focus

Next Steps:

- Use data on hospital implementation of AS programs and antibiotic prescribing to guide efforts
- Explore utility of and need for regional antibiograms
- Inform methods and content for statewide public/patient engagement and education
- Engage more rural and outpatient providers to join Collaborative

Improve animal antibiotic stewardship

Successes:

- Members and website provide support for veterinary feed directive implementation
- Involvement in national antibiotic use tracking efforts in pork, beef, dairy, poultry
- Integration of AS in veterinary curriculum
- Continuing education seminars conducted by multiple Collaborative members
- Collaboration of production sectors to educate public and professionals (e.g., fact sheets)
- Identification of key needs in companion animal medicine for AS support and education

Next Steps:

- Provide 4H AS education at State Fair
- Develop additional fact sheets on antibiotics in veterinary medicine
- Create videos showing how antibiotics are used in animal health
- Continue to seek funding for pilot project for antibiotic use tracking in companion animal settings
- Produce continuing education content for companion animal veterinarians

Develop “antibiotic footprint” tools, improve understanding of environmental impact on resistance

Successes:

- Refined objectives and anticipated outputs
 - Environmental antibiotic footprint map
 - Clinical tool to reduce prescriber footprint
- Proposal submitted to LCCMR for environmental footprint research project

Next Steps:

- Development of “Antibiotic Footprint Clinical Support Tool”
- Hold learning session for on pharmaceutical take-back practices, challenges, needs
- Consider statewide recognition of pharmaceutical take-back programs