

# Minnesota One Health Antibiotic Stewardship Collaborative (MOHASC)

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# Context: Why was interprofessional learning necessary?

- **Competing priorities**
  - How to consider the good of the whole rather than individual patients, animals?
- **Definition of “optimal”, “judicious”, “appropriate”**
  - How do we define this in an evidence-based way?
  - What are the “low-hanging fruit” for stewardship in each field?
- **Lack of data**
  - How can we set goals and identify progress without data?
  - How can we share data comfortably?
- **Association does not equal causation**
  - How can we design meaningful research?
- **Communication**
  - Across fields
  - With public and policy makers

# Need: Why was a One Health approach applied?

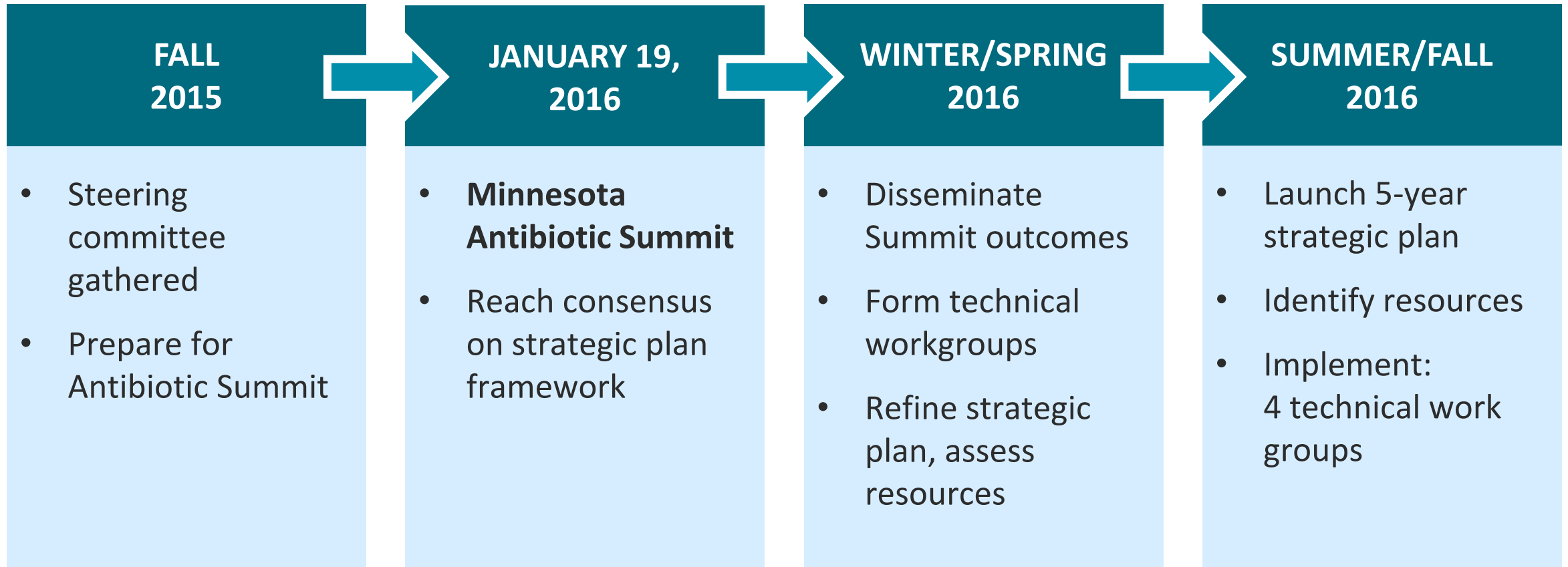
## WANTS

- Collaboration, common goals, recognize alignment & differences
- Decisions made on unbiased data, not politics or public perception
- Community understanding and informed participation
- Minimize environmental contamination for safe food and water supply

## FEARS

- Ineffective antibiotics, untreatable infections, death, adverse effects
- Reactionary decisions without sound science, incorrect assumptions
- Overregulation replacing careful medical assessment
- Negative impact on environment and ecosystem

# Program Design



# Implementation

## MOHASC 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.



## Foundational Approach:

- Human, animal, and environmental health are inseparable.
- All antibiotic use can lead to resistance.
- There is some contribution to resistance from every sector using antibiotics
- Lack of “proof” of harm is not an argument for irresponsible use.
- Greater abuse in other disciplines is not an argument for injudicious use in yours.
- There are unreasonable critics.
- Behavior change is key.

# Enablers

- **State agency representatives**

- MN Department of Health
- MN Department of Agriculture
- MN Pollution Control Agency
- Boards of Animal Health, Vet Med, Pharmacy, Dentistry

- **Stakeholders from all fields**

- University researchers
- Human and animal health professional and industry associations
- Clinical professionals from healthcare systems, including inpatient, outpatient, long-term care
- Veterinary professionals from large and small animal clinical practice
- Human and animal pharmaceutical companies



# Outcomes and Impact

- **Collective vision magnifies state investment**
  - 1.0 FTE at Minnesota Department of Health
  - >2,000 hours/year of in-kind member contributions
  - >200 members representing >90 organizations, and growing...
- **A common mission energizes daily stewardship practice**
  - New resources, ideas, research opportunities
- **Networking drives practice change**
  - Mentorship that benefits giver and recipient
  - Improved continuing education offerings including professional exchanges
- **Evidence-based approaches are shared to fill gaps**
  - Health care tools, clinical resources developed and modified for cross-sector use in multiple settings
- **Together, we ensure the public receives reliable information**
  - Fact sheets, Minnesota State Fair booth, library program, One Health newsletter, USAAW campaign





# Lessons Learned


- Centered around building trust and relationships
- All sectors must come to the table with a shared understanding and collaborative communication approach
- A learner mindset is key to success
- Knowledge intake must be followed by behavior change
- It takes time!

*Open Forum Infectious Diseases*

PERSPECTIVES INVITED

 **IDSA**  
Infectious Diseases Society of America

 **hivma**  
hiv medicine association

 **OXFORD**

Minnesota One Health Antibiotic Stewardship Collaborative: A Reproducible Approach to Facilitate Antimicrobial Stewardship Progress

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[Minnesota One Health Antibiotic Stewardship Collaborative: A Reproducible Approach to Facilitate Antimicrobial Stewardship Progress](https://pmc.ncbi.nlm.nih.gov/articles/PMC9757673/)  
(<https://pmc.ncbi.nlm.nih.gov/articles/PMC9757673/>)



# Thank you!

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