Our efforts around antimicrobial stewardship

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Overview: Topics of today’s presentation

• Who we are & what we do
• How we got involved in the stewardship effort
• Our progress so far
• Foreshadowing what will come next
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The Pew Charitable Trusts: Who we are

• **Public Charity**
  – Funded primarily by 7 separate trusts
  – Established by four children of Sun Oil Company founder J.N. Pew Sr.
  – Strategic partnerships with other entities

• **Priorities**
  Democracy; Religion; **Health Care**; Arts & Culture;
  Environment; State policy; Consumer protection; Public opinion & demographics

• **Operations**
  – Primarily in U.S., some international focus
  – Offices in London, Brussels, other countries
Pew priority: antimicrobial resistance

- **Antibiotic stewardship in animal agriculture**
  - Understand & measure antimicrobial drug use
  - Promote responsible antimicrobial use
  - Find alternatives to antimicrobial use

- **Antibiotic use reduction in human healthcare**
  - Hospital & other inpatient settings
  - Outpatient settings

- **Antibiotic innovation**
  - Overcoming barriers to innovation
    - Regulatory, financial and scientific

Source: [http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050112](http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050112)
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Antimicrobial resistance is an issue in human medicine. 63% of infectious disease doctors have treated patients with infections that did not respond to any antibiotics.

2 million Americans acquire serious infections caused by antibiotic-resistant bacteria each year. 23,000 people die each year as a direct result of these infections. Antibiotic use is associated with adverse patient outcomes, such as Clostridium difficile infections, which cause at least 14,000 deaths in the United States each year.

Source
http://www.pewtrusts.org/~media/assets/2015/02/antibioticoveruseinfographic_artfinal_v5.pdf?la=en
Why antibiotic stewardship is important (II)

Animal Health risks

Antimicrobial resistance is an issue in cattle pathogens

Source:
Notable progress in human stewardship

• Defining antibiotic stewardship helped create alignment
  – Core elements of stewardship programs defined – CDC led, broad agreement
  – Definition adapted to different settings (e.g., hospital, outpatient clinic, etc.)
  – Some stewardship programs mandated (e.g., hospitals accredited by Joint Commission)

• Baseline set for demonstrating reductions in inappropriate antibiotic use
  – Consensus reached & baseline data on inappropriate use collected
    • e.g., CDC/Pew study: 1 in 3 prescriptions in outpatient settings unnecessary
  – Data reporting options developed (e.g., national surveillance networks)

• Understanding antibiotic prescribing behavior helps improve stewardship
  – Research on behavioral drivers of antibiotic prescribing
  – Benchmarking of prescribers (e.g., by insurance companies)
Stakeholder interviews led to our project

Overview of current activities

Many ongoing activities
Currently unmet needs
Supply chains complex, approaches fragmented
Transparency limited
Consumer confusion
Concerns about unintended consequences
Lost opportunity to build consumer trust

Gaps in current activity

Limited alignment
Uncertain path forward
Uncertainty discourages innovation
Varying requirements
Duplication of efforts

Role for us in antibiotic stewardship

Natural role for us as a convener
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Values of antibiotic stewardship programs

Stewardship programs should provide

- Information
- Motivation
- Trust
Goals of antibiotic stewardship in animal ag

Stewardship goals

Responsible antibiotic management

- maintain drug efficacy
  - human medicine
  - veterinary medicine
- maintain health & well-being
  - human health
  - animal health & well-being
  - animal welfare
  - food safety & security
Draft definition of stewardship for animal ag

Antibiotics are an essential tool in maintaining the health and well-being of humans and animals, as well as ensuring food security and safety. A comprehensive approach to antibiotic stewardship is required to protect their efficacy. Because of the resistance challenge, antibiotic use in all settings needs to be carefully and responsibly managed.

Essential to antibiotic stewardship and animal well-being are appropriate veterinary oversight; minimizing the need for antibiotics through biosecurity, good husbandry practices and other disease prevention strategies; optimizing treatment efficacy through sound decision-making; and appropriate drug selection and use.
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Next steps for our stewardship efforts

Find win-win solutions that foster antibiotic stewardship

- Expand the participant circle
- Keep working on practical solutions
- Continue the dialogue
Thank you for your time & attention

To continue the discussion beyond today please contact:

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Source: New Yorker, 12/06/2004