Learning from the June Roundtable ...

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Potential Metrics from 2015 NIAA Forum

**Metric 1 Revised** - Percentage of producers with stewardship programs overseeing collection/dissemination of data on AMR from human, animal and environmental sources.

**Metric 2 Revised** - Percentage of treatment decisions guided by diagnostic tests.

**Metric 3** - Proportion of production units that have a documented Veterinarian-Client-Patient Relationship (VCPR).

**Metric 4** - Degree to which new and alternative interventions are being used in practice by veterinarians.
What about Antibiotic Use Metrics?

• Several questions that need to be answered (WHY? WHAT? HOW? WHO?)
  – What is the goal that we are trying to achieve? (Consumer marketing. Improve animal health. Decrease AMR … in animal pathogens … in human pathogens)
  – Are we willing to decrease overall health status? (Animal welfare)
  – How will the metrics be collected? (Manually and report? Electronically?)
  – What is the optimal amount? Is less actually better?
  – Who is going to do this? (Vets? Government? Animal protein industries?)
What about Antibiotic Use Metrics?

• Challenges include differentiating between amount manufactured and sold to distribution, amount that went to veterinarians/animal production units, amount prescribed, amount actually used, etc.

• What do we measure?
  – Amount per production unit per year?
  – Amount per animal per year?
  – Doses per animal per year?
  – What about differences in dosage per lb. body wt?
    • Macrolides: 2.5 mg/kg, 4.0 mg/kg, 6.0 mg/kg, 10 to 20 mg/kg
  – What about frequency of treatment? (Daily, 3 days, 7 days, 10 days)
Potential Antibiotic Use Metrics Per Animal

• Some potential Use Metrics:
  – Defined Daily Dosages (DDDs) (human, WHO)
    • Animal Daily Dose (ADD_{DK})
    • Defined Animal Daily Dose (DADD_{DK})
    • Defined Daily Dose Animal (DDDA_{NL})
  – Defined dose / no. of head-days
  – Defined Course Dose

• Need to pair with **health outcomes**
  – “Professional organizations recommend that antimicrobial stewardship programs measure their antimicrobial drug use and the clinical outcomes of interventions that change drug use.”*
  – Example: Defined Course Doses/animal cure