ARMY-BAYLOR UNIVERSITY GRADUATE PROGRAM IN HEALTH AND BUSINESS ADMINISTRATION

# Ethical Use of Antibiotics

## Approaching Ethical Decision-Making Through the Army-Baylor Model

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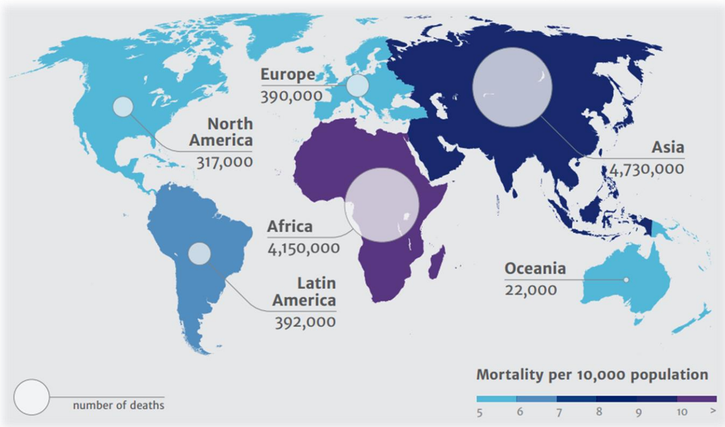
### 1. Frame the Question

Should healthcare organizations prohibit antibiotic prescription for small therapeutic gains?

**Deaths attributable to antimicrobial resistance every year by 2050**




Source: O'Neill, J. (2014). Antimicrobial Resistance: Tackling a crisis for the health and wealth of nations. Wellcome Trust. Retrieved from: http://amr-review.org/Publications

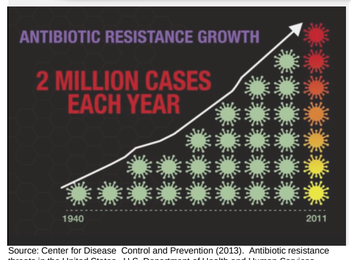
### 2. Set out the Organizational Situation

**Background**

- Each year, 23,000 people die from antibiotic resistance (CDC, 2013)
- An estimated 2,049,442 nosocomial infections occur annually from bacterial strains resistant to multiple classes of antibiotics
- Meta-analytic studies indicate that antimicrobial resistance may result from inappropriate antibiotic prescription (Costelloe, Metcalfe, Lovering, Mant, & Hay, 2010)
- Providers frequently prescribe antibiotics for conditions that pose no irretrievable harm (i.e. facial acne)
- Frequent antibiotic use may facilitate the generation of new antimicrobial resistant strains which cause patients undue harm
- Even though there are many guidelines governing antibiotic use, evidence indicates that there continues to be a problem in over-prescription
- The cost of treating these infections range as high as $20 billion annually in the US and poses significant ethical challenges (CDC, 2013)

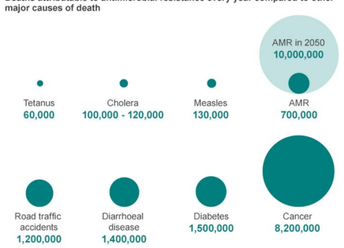
**Organizational Dilemma**

- Organizations face ethical dilemmas when developing policy to protect patients and communities from undue harm while not implementing policies which interfere with doctor-patient relationships




Source: Center for Disease Control and Prevention (2013). Antibiotic resistance threats in the United States. U.S. Department of Health and Human Services. Retrieved from: http://www.cdc.gov/drugresistance/threat-report-2013/

**Deaths attributable to antimicrobial resistance every year compared to other major causes of death**

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### 3. Note the Contextual Factors

**Patients**

- Want access and treatment to what they perceive is the best treatment including antibiotics for small therapeutic gains (acne free skin, clear sinuses, etc.)

**Providers**

- May feel pressured to satisfy the wants of patients

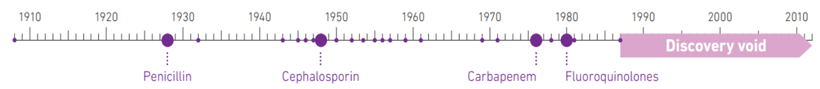
**Healthcare Organizations**

- Want to promote community wellness and protect patients from nosocomial infections

**Manufacturers**

- Want greater utilization of antibiotics for profit gain, but show little interest in investing in research and development of new antibiotic drugs (So, 2010)

**Over the last 30 years, no major new types of antibiotics have been developed**

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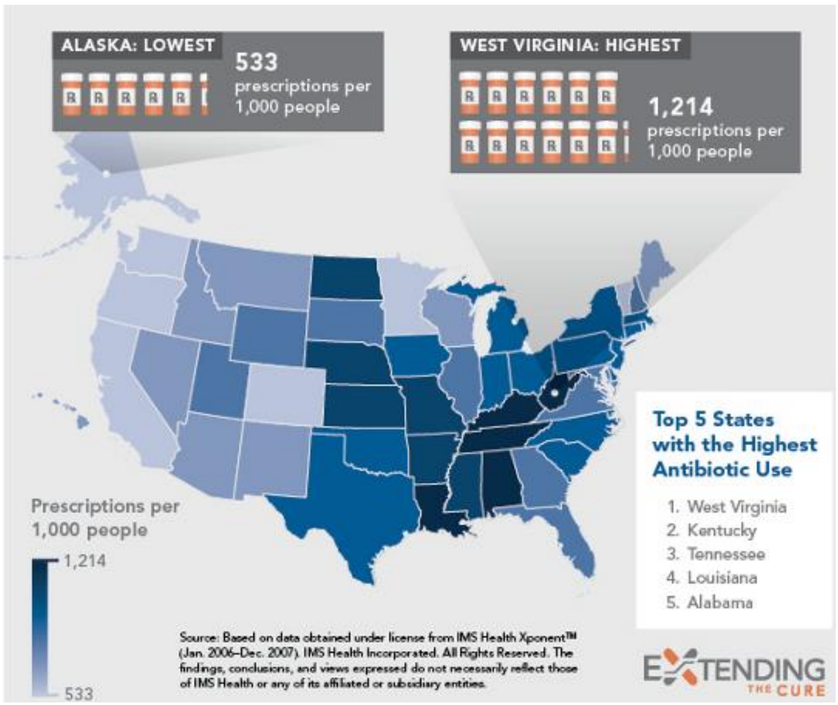



### 4. Revisit the Question

Should organizations implement policies that prohibit providers from prescribing antibiotics for self-limiting conditions? And if so, what principles should govern the development of these policies?

### 5. Ask and Answer relevant L.L. Nash's 12 Questions

**3. How did this situation occur?**

- Absent or inadequate organizational policies in relation to antibiotic prescription patterns
- Providers constrained by a patient-centered focus rather than a population health focus
- Through aggressive advertising and provider incentives, manufacturers encourage higher utilization and are disinclined to generate new antibiotics

**4. To whom or what do you give your loyalty?**

- Community good
- Individual interests

**5. What is your intention?**

- To highlight a significant problem and underscore ethical principles to guide organizational policy development

**7. Whom could your decision injure?**

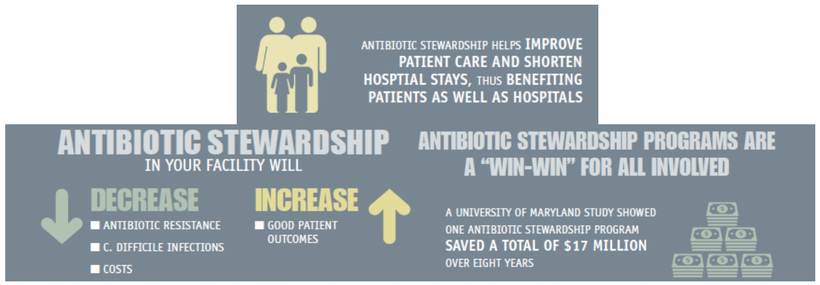
- Individual patients
- Community
- Pharmaceutical companies

**12. Under what conditions would you allow exceptions?**

- Valid exceptions may arise and would be at the provider's discretion. However, the organization should monitor provider patterns and hold them accountable for gross aberrations of standard protocol
- Organizational leadership should actively monitor antibiotic prescription patterns to identify and correct problems as they arise

### 6. Identify and Weigh Alternatives

- Afford providers complete prescription autonomy
- Develop organizational policy for the use of antibiotics only in the case of irretrievable harm to the patient
- Promote antibiotic stewardship to maximize the benefits of the individual and community
- Seek federal legislation that incentivizes drug companies to research & develop new antibiotic products




Source: Center for Disease Control and Prevention (2013). Antibiotic resistance threats in the United States. U.S. Department of Health and Human Services. Retrieved from: http://www.cdc.gov/drugresistance/threat-report-2013/

### 7. Decide

Healthcare organizations should set policy that restricts antibiotic use for small therapeutic gains. Additionally, antibiotics should only be prescribed when failing to do so would cause irretrievable harm to the patient.

**"Antibiotics are like a leaky craft, which becomes less effective the more it is used." (Millar, pg. 465, 2012)**

**Approval and Disclaimer**

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