



Addressing Antimicrobial Stewardship: The Need for a One Health Approach

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What is One Health?



H5N1



Some of the issues.....

Spillover

Biosecurity

Stewardship

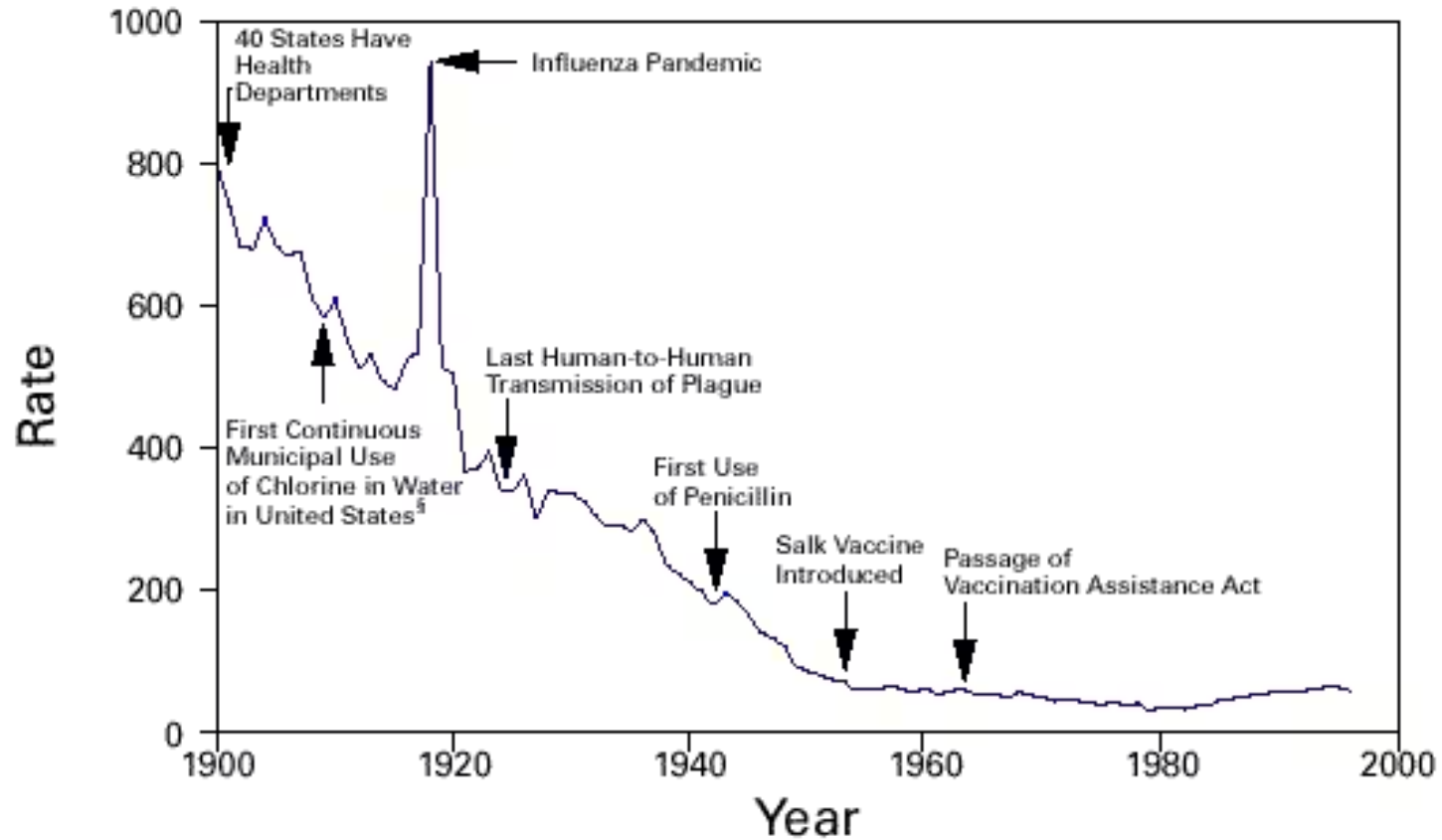
Farm worker permissive PPE

Testing and prophylaxis

But not our focus of today



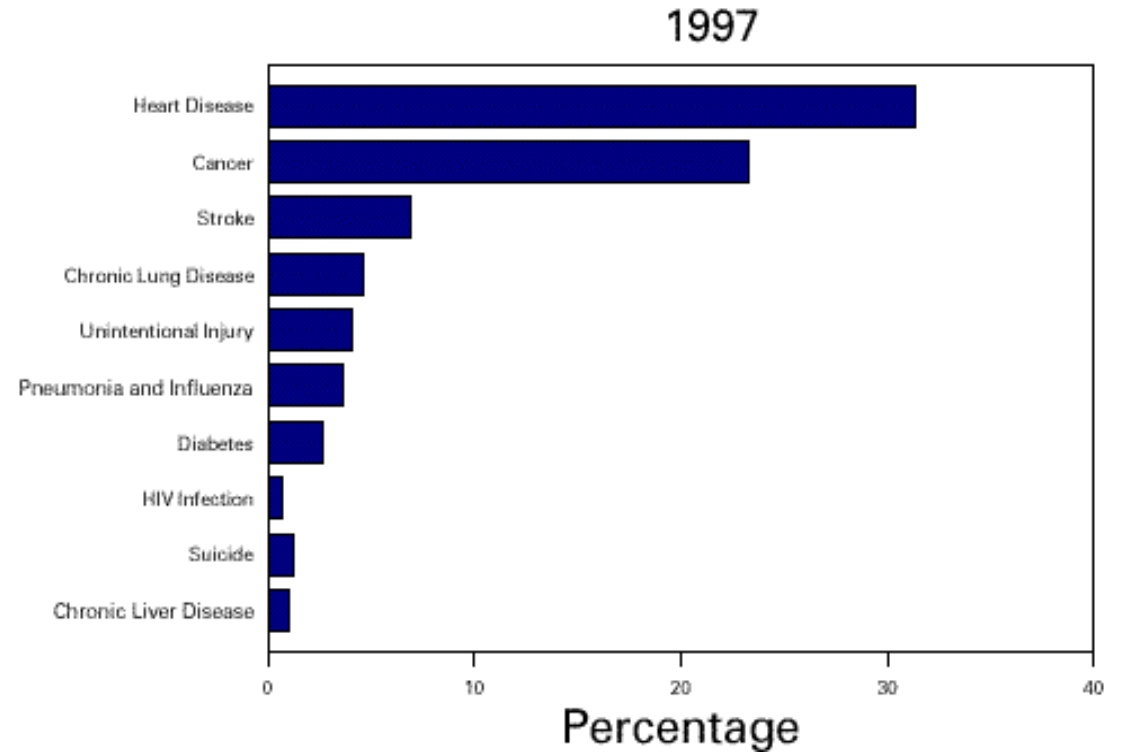
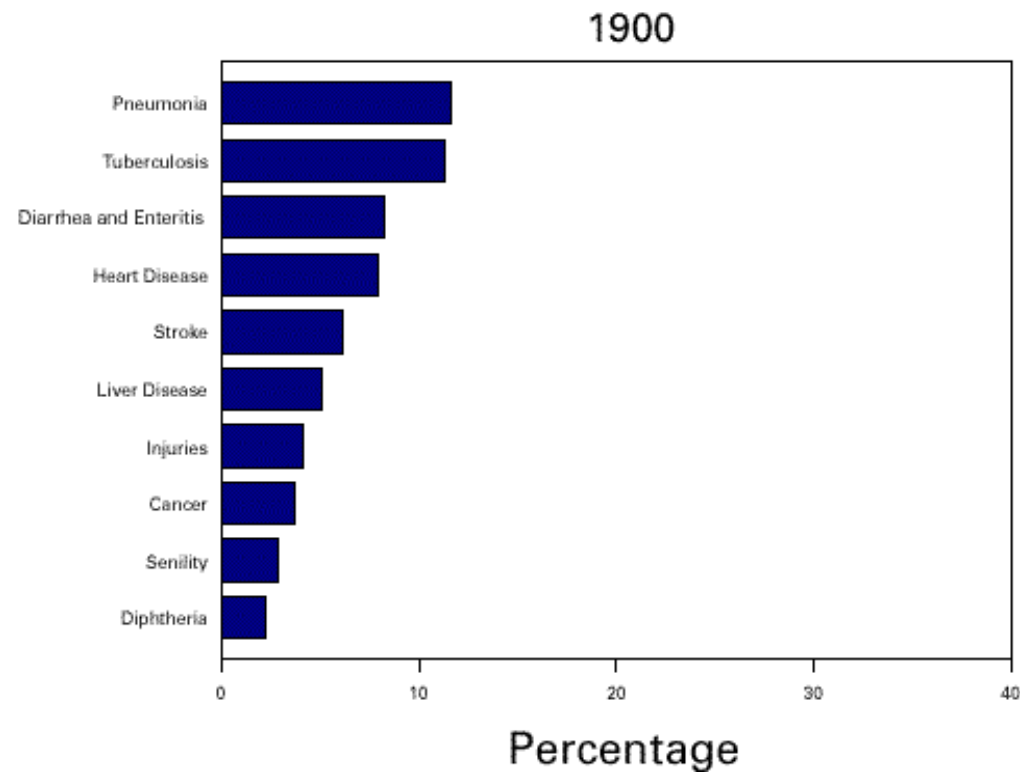
Crude death rate* for infectious diseases—United States, 1900-1996



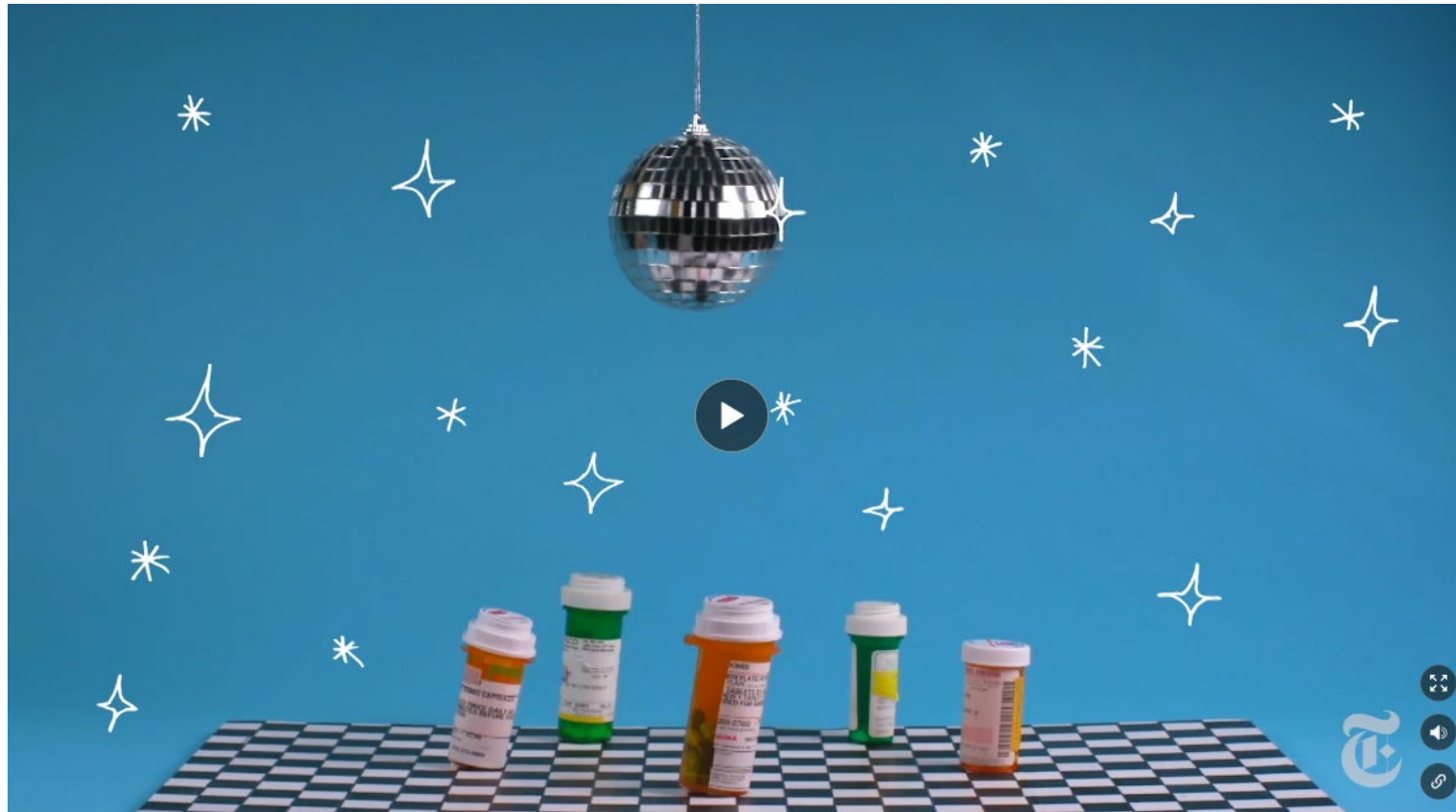
*Per 100,000 population per year.



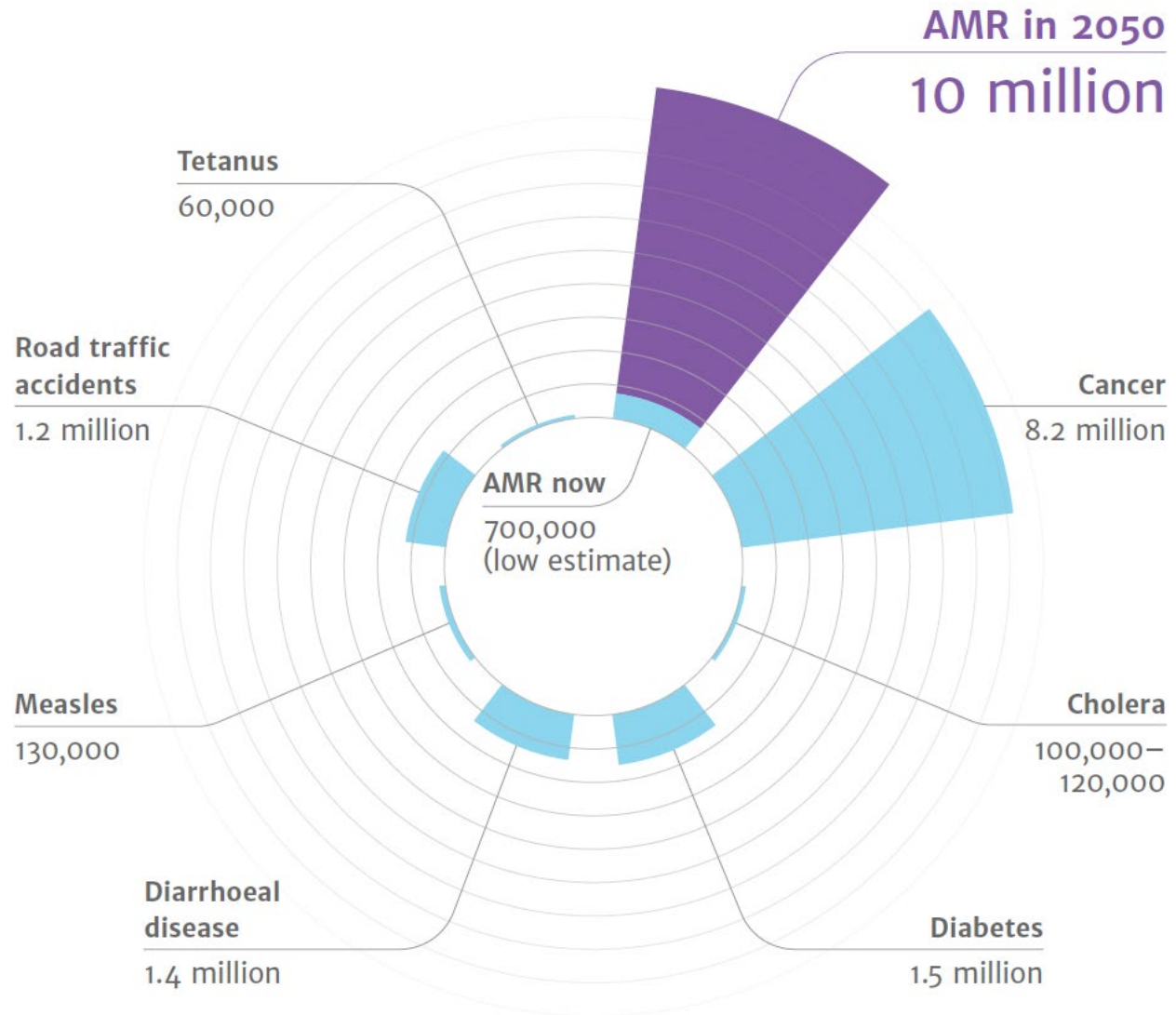
The 10 leading causes of death as a percentage of all deaths—United States



★ The antibiotic era...



NYT video: Matt Richtel and Andrew Jacobs 4/6/2019 [“Bacteria are rebelling”](#)



Sources:

Diabetes: www.whi.int/mediacentre/factsheets/fs312/en/ Cancer: www.whi.int/mediacentre/factsheets/fs297/en/
Cholera: www.whi.int/mediacentre/factsheets/fs107/en/ Diarrhoeal disease: www.sciencedirect.com/science/article/pii/S0140673612617280
Measles: www.sciencedirect.com/science/article/pii/S0140673612617280 Road traffic accidents: www.whi.int/mediacentre/factsheets/fs358/en/
Tetanus: www.sciencedirect.com/science/article/pii/S0140673612617280



UN General Assembly, Sept 2024, NYC

9 September 2024

Political Declaration of the High-level Meeting on Antimicrobial Resistance

- Reduce the estimated 4.95 million human deaths associated with bacterial AMR annually by 10% by 2030
- Sustainable national financing and US\$100M in catalytic funding to help achieve a target of at least 60% of countries having funded national action plans on AMR by 2030
- 100% of countries have basic water, sanitation, hygiene, and waste management services in all healthcare facilities
- Equitable access to and appropriate use of antimicrobials
- Reporting surveillance data on antimicrobial use and across AMR sectors

<https://www.who.int/news/item/26-09-2024-world-leaders-commit-to-decisive-action-on-antimicrobial-resistance>

A United Front: Collaborative Global Leadership to Combat Antimicrobial Resistance

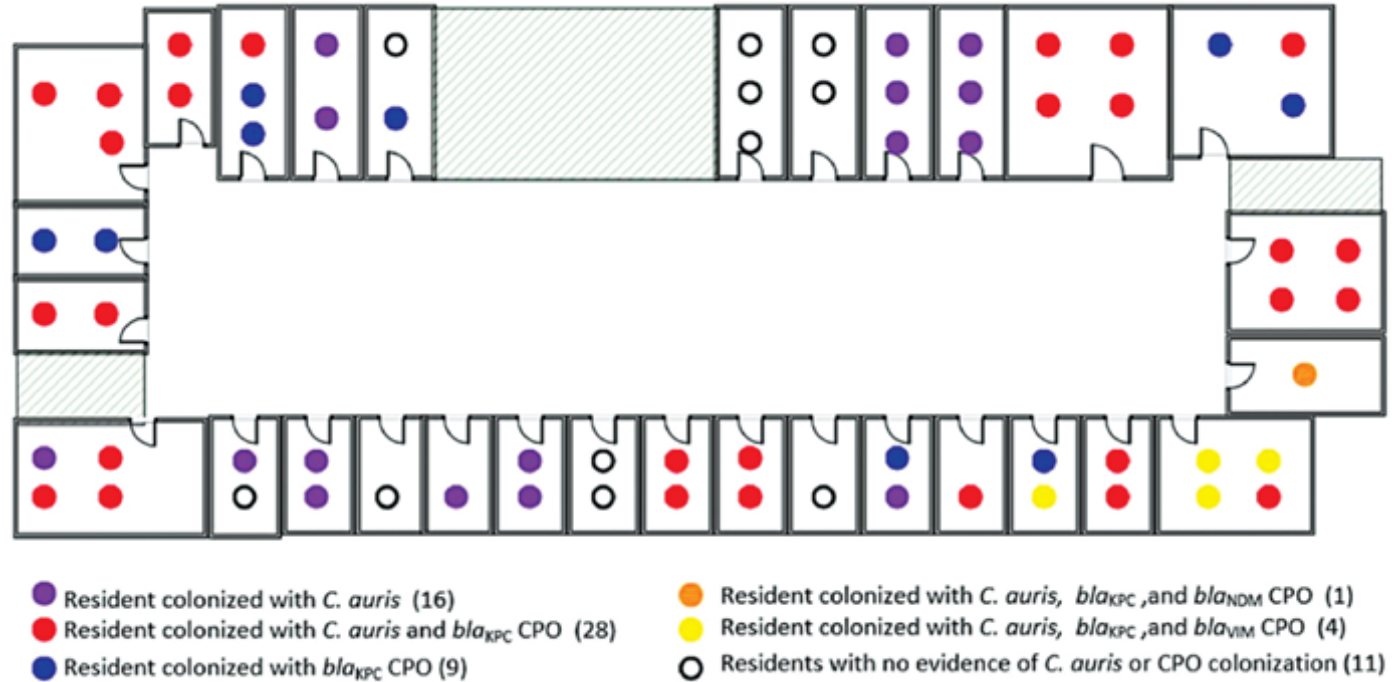


THEMES:

- AMR=bacterial and fungal infections
- Use of plain language
- Monitoring and use of metrics
- Engagement of local stakeholders
- Global targets that allow for localized implementation

★ Burden and Where Do We Go Next?

- Infections caused by multidrug-resistant organisms (MDROs) are estimated to cause **35,000 deaths** in the US every year and increase medical costs by **\$4.6 billion**.
- Residents of LTCFs are frequently hospitalized, and LTCFs that provide high volumes of post-acute care have repeatedly been implicated in regional outbreaks caused by epidemiologically important MDROs.
- These findings point to a critical need to expand MDRO efforts **beyond the hospital setting**.



★ Impact of COVID-19 on AMR: risks and opportunity

- Increasing understanding of IPC
- Increased surveillance and lab capacity and awareness of this importance
- Suspended hospital surveillance programs
- Young research talent diverted to viral infections
- Resource constraints for implementation
- Ineffective stewardship
- Decrease in funding



What Can Our Local Community Do About the Global AMR Problem?

US Antibiotic Awareness Week is from November 18-24

Fighting Antimicrobial Resistance
TAKES ALL OF US

U.S. Antibiotic Awareness Week
November 18-24, 2024

bit.ly/USAAW2024



★ CDPH One Health Workshop

- May 2023, Hosted a one-day workshop with partners from Human and Animal sector to discuss antimicrobial stewardship.
- 30 attendees
 - Attendees included local antimicrobial stewardship leads, pharmacists, veterinarians

Fears

Wants




Priorities

Barriers

Human and Animal Healthcare Providers Have Expressed Needs for Education, Data, Guidelines, and Communication Resources



	Fears	Wants	Priorities	Barriers
Education/ training	Human health	Both	Both	
Need for AMR and AUR Data	Human health	Human health	Both	Human health
Need for AMS Resources	Human health	Human health		Both
Need for infection prevention resources		Animal health		
Guideline availability		Both	Both	Human health
Guidelines not being followed	Both	Human health		Both
Patient/ client/ public communication tools	Human health	Human health	Both	Both
Loss of patient to follow up				Animal health
Treatment availability for patients	Both	Animal health		Animal health
Risk of antibiotic side effects if first line treatments are not available	Animal health			Animal health
Cost for diagnostics or treatment	Animal health			Animal health
Negative effects on other aspects of patient care (e.g. social/ behavioral)	Human health			

 Human health
 Animal health
 Both



Conference Agenda



Opening Sessions:

**Why is a One Health Approach Necessary to Combat AMR?
How Does AMR Impact Health Equity?**



Using Data for Action: Leveraging Data to Inform and Enhance Stewardship Efforts



Preventive Measures: The Crucial Role of Infection Prevention in Stewardship



Getting Started: Strategies to Maximize Your Impact in Stewardship



Engagement and Influence: Applying Behavioral Psychology to Enhance Antimicrobial Stewardship

Infection Preventionists



Public Health Professionals

Nurses

Laboratorians

Data Analysts

Educators

Veterinary professionals

Skilled Nursing Facility
Providers

Outpatient providers

Wildlife conservationists

Academic researchers

Healthcare Administrators

Hospital Stewardship
Professionals



Pharmacists

Students

THANK YOU!!!



One Health AMS Planning Committee:

- Janna Kerins
- Do Young Kim
- Janice Turner
- Kim Goitia
- Karen Branch-Crawford
- Cecilia Pigozzi
- Eric Murken
- Anastasia Dervins
- CDPH HAN Help Desk

CDPH One Health Conference Logistics Team:

- **Clarissa Najera**
- **Alexis Cano**
- **Jazmine Wright**
- **Star Cervantes**
- **Sam Rene**

CDPH One Health Conference CEU Partners:





Housekeeping

- Program will run until 4:30 with a one-hour lunch and 2 ten-minute breaks.
 - Include a Q & A session to allow for audience to ask questions of experts
 - Lunch
- Parking validation
- Lactation room
- CE credit
- **Antimicrobial Stewardship Capacity Assessment**