ANTIMICROBIAL STEWARDSHIP AND ANTIBIOGRAM

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CDC AND WINNABLE BATTLES

- Tobacco
- Nutrition/Physical Activity/Obesity
- Food Safety
- Healthcare-Associated
 Infections

- Motor Vehicle Injuries
- Teen Pregnancy
- HIV in the US

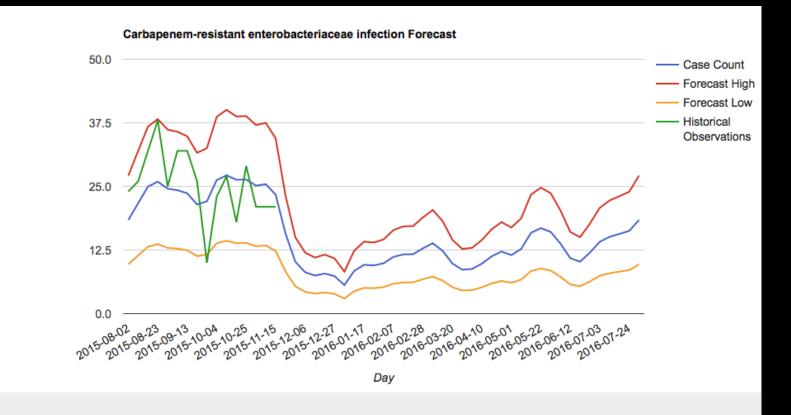
HEALTHCARE-ASSOCIATED INFECTIONS

- At any given time, about 1 in every 25 patients has an infection related to their hospital care. Healthcare-associated infections (HAIs) not only affect patient lives, but also add to our growing healthcare costs.
- CDC has identified eliminating HAIs as a Winnable Battle. With additional effort and support for evidence-based, cost-effective strategies that we can implement now, we can have a significant impact on our nation's health.
 - Prevent spread of bacteria between patients
 - Prevent spread of bacteria between patients
 - Improve antibiotic use and reduce development of resistance by using antibiotics when necessary, use the appropriate antibiotic in the proper dosage, frequency, and duration

STATE ANTIMICROBIAL STEWARDSHIP PROGRAM (JW)

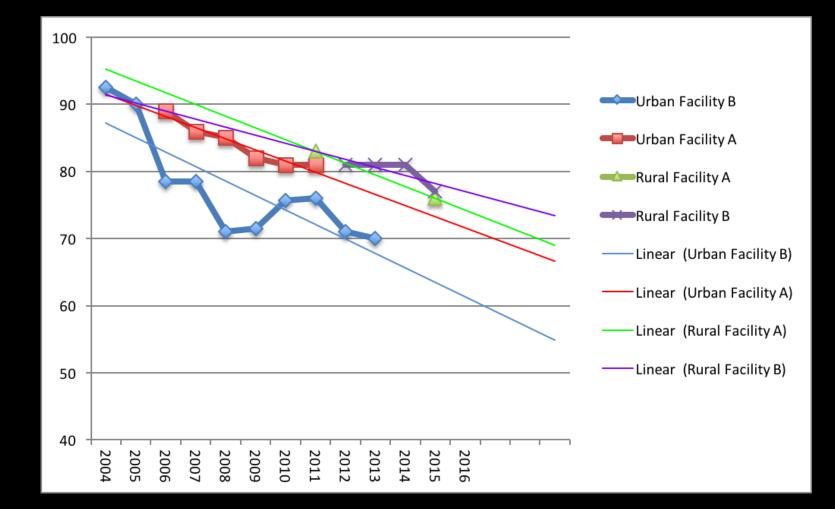
- First statewide coordination initiative in the United States.
- Joint Commission will be adding antimicrobial stewardship as a standard.
 - Will follow CDC recommendations
 - Includes a formal, written statement of support from leadership supporting their organization's stewardship initiatives.

JAPAN: INITIAL INDICATION OF FORECASTABLE DRUG RESISTANT BACTERIA ACTIVITY SIGNATURES



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CIRPO-E. COLI RESISTANCE ACROSS ACUTE CARE FACILITIES, WASHOE COUNTY (INC. CARSON VALLEY)



SNHD ANTIBIOGRAM

Similarities

 These both are intended to help guide empiric antimicrobial treatment and are important components of detecting and monitoring trends in antimicrobial resistance.

SNHD ANTIBIOGRAM

• Differences

- We will construct the community antibiogram with data from local providers (hospital and commercial labs); data is stored in house.
- Monitor current trend of antibiogram in community.
- Provide guide of empiric antimicrobial treatment to local providers.

SNHD ANTIBIOGRAM

Outcomes

 This will help guide the clinician and pharmacist in selecting the best empiric antimicrobial treatment while microbiology culture and susceptibility results are pending.

Antibiogram example

2					% Susceptible															
3 WVN DINANA	# Isolates	Ampicillin	Ampicillin/sulbactam	Cefazolin	Cefepime	Ceftazidime	Ceftriaxone	Cefuroxime	Ciprofloxacin	Clindamycin	Erythromycin	Gentamicin	Imipenem	Levofloxacin	Nitrofurantoin	Oxacillin	Penicillin G	Piperacillin/tazobactam	Trimethoprim/sulfamethox	Vancomycin
Gram-negative								_												
Escherichia coli	5955	61	70	93	100	99	99		84			94	100	84	96		-	99	81	
Klebsiella pneumoniae	1009			100	100	100	100		99			100	100	99	38			100	93	
Klebsiella oxytoca	199			75	100	98	99		94			97	100	97	80			96	98	
Enterobacter aerogenes	134				100	88	90		99			100	100	99	11		1	91	99	
Enterobacter cloacae	294				99	84	84		95			98	100	95	36			89	93	
Serratia marcescens	173				100	97	99		93			97	99	95				100	98	
Proteus mirabilis	782	58	75	91	97	97	97		61			81		65				100	59	
Morganella morganii	122				95	69	92		72			84		76				84	68	
Pseudomonas aeruginosa	767				91	89			70			86	89	71				99		
Stenotrophomonas maltophilia	83											1							84	
Klebsiella pneumoniae ESBL	18			0	0	0	0		50			78	100	56	0			53	56	
Escherichia coli ESBL	87			0	0	0	0		16			72	100	18	73			95	26	
H. influenzae	134	79					99	79*	100					100						
Gram-positive																				
Enterococcus	1526								62					63	97		91			100
Staph aureus Methicillin Sensitive	1567								86	87	61			88	99	100		[98	100
Staph aureus Methicillin Resistant**	1295								32	63	4			32	98	0			97	100
Staphylococcus coagulase-neg.	146								36	54	39			36	100	37			67	100
Enterococcus species (VRE)	79														15		12			0
Enterococcus faecalis (VRE)	7														100		100			0
Enterococcus faecium (VRE)	65					1		1							3		0			0
Streptococcus pneumoniae***	160							73		87	70			99			64			100
Meningeal - Susceptible	47						90												1	
Nonmeningeal - Susceptible	strength of the local division of the local				Q 8		82													

ANTIBIOGRAM

- SNHD Antibiogram will be similar to the previous slide
- Plan to have several for different populations
 - Pediatrics
 - Adult
 - ICU
 - General inpatient and outpatient
- Will also look at CC geography and hospital referral patterns



•SNHD

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