

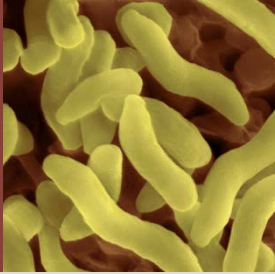


# Healthcare Safety Teams

Jessica Ross, CIC  
HAI Epidemiologist for Texas  
Texas Department of State Health Services



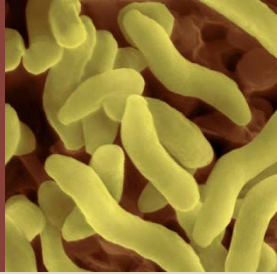
# **TEXAS HEALTHCARE ASSOCIATED INFECTION (HAI) INVESTIGATION TEAM**



# HAI Epidemiologist

## Cover a multitude of Infectious Diseases and situations

- Team of certified Infection Preventionist (CIC)
- ❖ Bloodborne Pathogens
- ❖ Influenza
- ❖ Emergency preparedness
- ❖ Multidrug-resistant organisms (MDROs)
  - MRSA, CDIFF, VISA/ VRSA
  - More emerging and urgent threats: CRE, MDR-Acinetobacter (MDR-A)
- ❖ High consequence diseases
  - Ebola
- ❖ Outbreaks in many different types of settings: acute care, LTCF, dialysis centers, dental facilities, ASC, and more.



# TX HAI investigation team

## ❖ Jessica Ross, CIC

- HAI Epi for TX
- Regionally covering HSR 1, 9/10, and 8
- Phone: 512-776-6356

## ❖ Bobbiejean Garcia, MPH, CIC

- HSR 6/5 S Regional HAI Epi
- Phone: 713-767-3404

## ❖ Thi Dang, MPH, CIC

- HSR 2/3 Regional HAI Epi
- Phone: 214-632-3480

## ❖ Annie Nutt, MPH, CIC

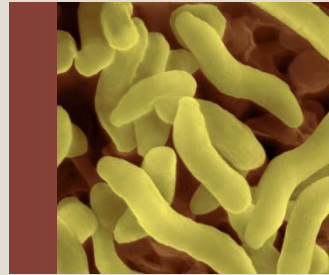
- HSR 4/5 Regional HAI Epi
- Phone: 903-533-5317

## ❖ Sandi Henley, RN, CIC

- HSR 7 Regional HAI Epi
- Phone: 254-750-9387

## ❖ Melba Zambrano, RN, CIC

- HSR 11 Regional HAI Epi
- Phone: 956-444-3208



# HAI Investigation Team

Jessica Ross  
HSR 1

Jessica Ross  
HSR 9/10

Jessica Ross  
HSR 8

## Local and Regional Public Health Coverage

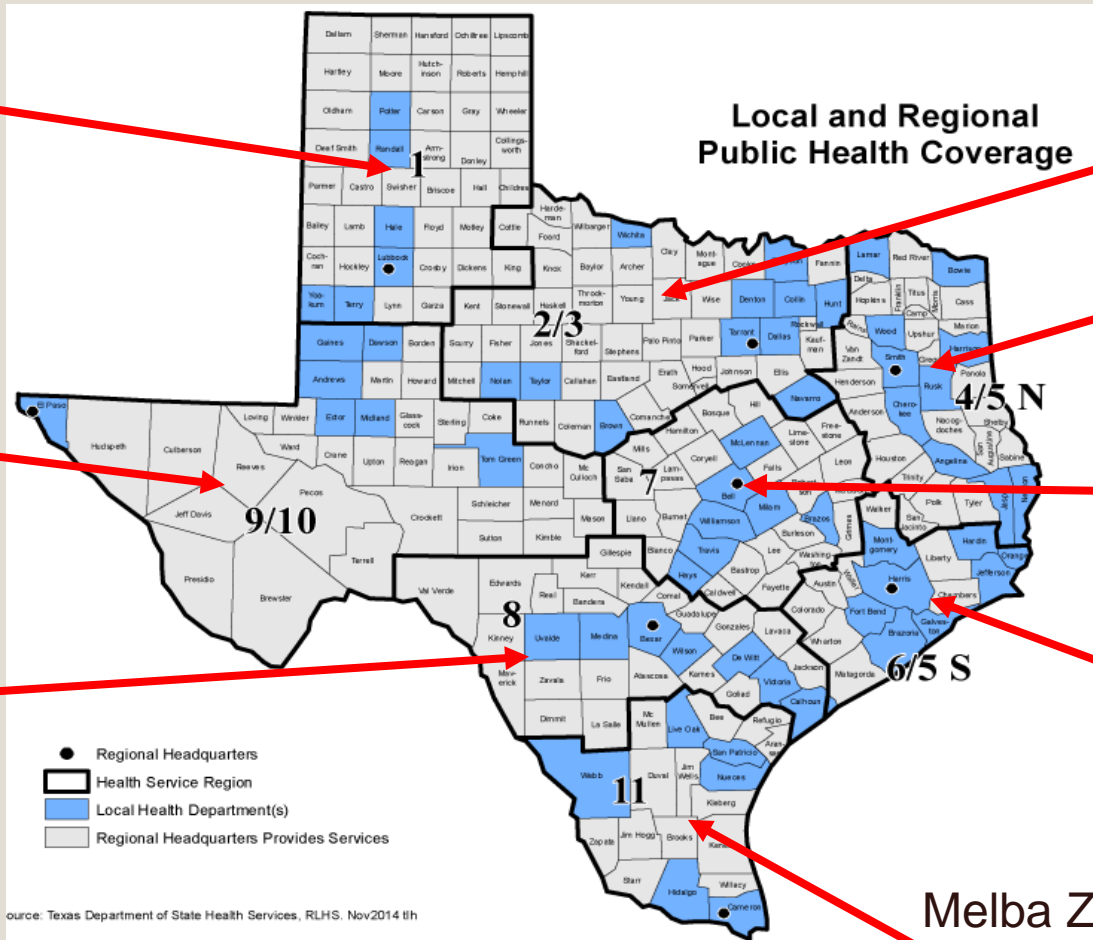
Thi Dang  
HSR 2/3

Annie Nutt  
HSR 4/5 N

Sandi Henley  
HSR 7

Bobbiejean Garcia  
HSR 6/5 S

Melba Zambrano  
HSR 11





# **TX NOTIFIABLE CONDITIONS**



# TX Notifiable Conditions

- Multidrug-resistant Acinetobacter (MDR-A) and Carbapenem resistant *Enterobacteriaceae* (CRE)-- CRE-*E. coli* and CRE-*Klebsiella* species are notifiable conditions in TX as of April 2014 and are reportable within 1 working day as of January 2016.
- VISA / VRSA are reportable immediately.
- Remember any outbreak, exotic disease, or unusual group expression of disease that may be of public health concern should be possibly reported.
  - Example: cluster of Pseudomonas in an ICU, Burkholderia bloodstream infections



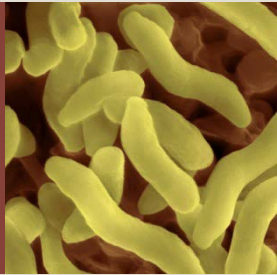


# MDRO Data

## Reported MDRO cases per organism identified in 2014 - 2015 (rates per 100,000)

	MDR- Acinetobacter (MDR-A)	CRE	CRE Organisms			TOTAL
			CRE- <i>K.pneumoniae</i>	CRE- <i>K.oxytoca</i>	CRE- <i>E.coli</i>	
2014*	860 (3.13)	541 (1.97)	452 (1.65)	12 (0.04)	77 (0.28)	1401 (5.10)
2015	978 (3.53)	875 (3.16)	722 (2.61)	28 (0.10)	125 (0.45)	1853 (6.69)



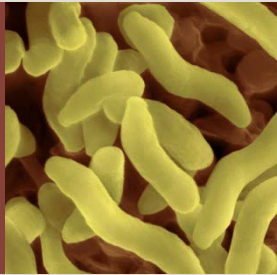


# MDRO Data

Specimen Source for each Reported MDRO Organism, 2015

	MDR-A	CRE			Total
		<i>E.coli</i>	<i>K.oxytoca</i>	<i>K.pneumoniae</i>	
Blood	80	10	0	39	129
Bone/Tissue	28	1	1	7	37
Other	47	13	2	27	89
Sputum	219	7	6	112	344
Urine	132	73	12	419	636
Wound	472	21	7	118	618
Total	978	125	28	722	1853

# MDRO Data



**Carbapenem Resistant Enterobacteraceae (CRE) Cases by Age Group in Texas, 2015**

Age Group (Yrs)	Year	
	2015	
	Count	IR
0-4	4	0.20
5-9	3	0.15
10-14	2	0.10
15-19	4	0.20
20-24	13	0.64
25-29	9	0.46
30-34	11	0.55
35-39	19	1.01
40-44	34	1.83
45-49	43	2.46
50-54	60	3.35
50-59	77	4.57
60-64	83	5.90
65-69	112	9.80
70-74	103	12.83
75-79	111	20.28
80-84	78	20.52
85+	110	31.24

**Multiple Drug Resistant Acinetobacter Cases by Age Group in Texas, 2015**

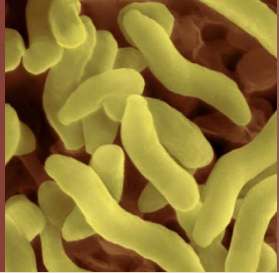
Age Group (Yrs)	Year	
	2015	
	Count	IR
0-4	3	0.15
5-9	3	0.15
10-14	2	0.10
15-19	3	0.15
20-24	14	0.69
25-29	18	0.92
30-34	24	1.20
35-39	34	1.81
40-44	53	2.86
45-49	55	3.14
50-54	60	3.35
50-59	124	7.36
60-64	106	7.53
65-69	128	11.20
70-74	117	14.57
75-79	94	17.18
80-84	69	18.15
85+	70	19.88







# OTHER PROJECTS



# Ebola Assessment Centers

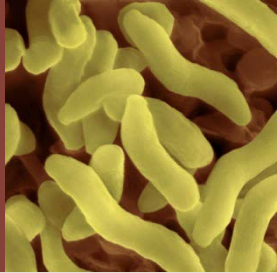
- TX received funding in 2015 to conduct assessments in healthcare facilities that chose to be an “Ebola Assessment facility”.
- Part of this funding included:
  - Mandatory pre-assessment tool to be completed by Ebola Assessment Centers.
  - On-site survey conducted by a multidisciplinary team from DSHS including Lab, Preparedness, and Epidemiology.
- 9 facilities across TX completed these on-site assessments



# Targeted Assessment for Prevention (TAP) Strategy

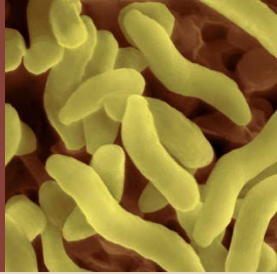
- ❖ Work with the HAI audit team to conduct site visits
- ❖ Starting in 2017 DSHS will begin the **Targeted Assessment for Prevention (TAP) Strategy** as another means to look at HAI data.





# What is the TAP Strategy?

- ❖ The Targeted Assessment for Prevention (TAP) strategy is a method developed by the CDC to use data for action to prevent HAIs.
- ❖ The TAP strategy targets healthcare facilities and specific units within facilities with a disproportionate burden of HAIs so that gaps in infection prevention in the targeted locations can be addressed.

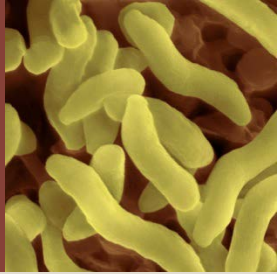


# Who is using the TAP strategy?



- ❖ CDC is working with partners such as CMS Quality Innovation Network-Quality Improvement Organizations (QIN-QIOs), State Health Departments, healthcare systems, and facilities to incorporate the TAP strategy into their quality improvement work.
- ❖ DSHS HAI investigation team will be utilizing the TAP strategy to identify and reach out to facilities within their jurisdictions to assist them with prioritizing HAI prevention throughout facilities or within specific locations.



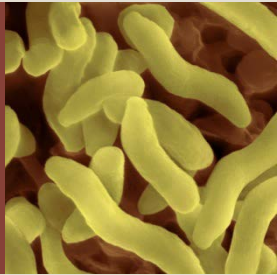


# Where does the data come from?

- ❖ Data used for the TAP reports are reported by healthcare facilities in the CDC's National Healthcare Safety Network (NHSN) database.
- ❖ Healthcare facilities can also generate their own TAP reports to look at their own data for different HAIs and patient care locations.



# HAI AUDIT TEAM



# DSHS Validation Team



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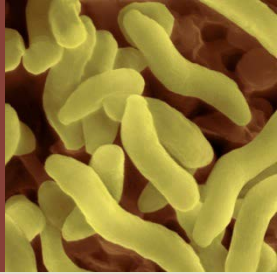


# HAI DATA VALIDATION



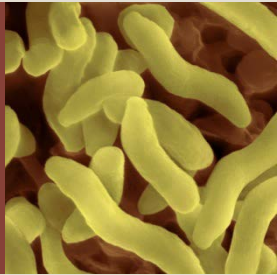
# Data Validation: 2015

- Audit data for 6 month period:
  - H1 (Jan – June): Facility selected in October 2015
  - H2 (July – Dec): Facility selected in April 2016
- Selected facilities based on the Standardized Infection Ratio (SIR) or using NHSN Facility Selection procedures
  - SSI and CAUTI: Significantly high SIR
  - CLABSI: Facility selected using NHSN Guidelines



# CLABSI Audit: Facility Selection

- 21 in the top third of facilities with highest number of expected/predicted infections are selected.
  - Top 7 facilities with SIRs above the median
  - Top 7 with SIRs at or below the median, but above 0
  - Top 7 with SIRs = 0
- 5% of all remaining facilities are randomly selected (~15).



# Medical Record Selection

Selected facilities will be required to submit a line list of all positive blood cultures from the given audit period (6 months). Line list should include:

- MRN
- Gender
- DOB
- Admission Date
- NICU/ICU
- Name/Type of ICU (optional)
- Lab Specimen # (optional)
- Specimen Collection Date
- Organism Name



# Medical Record Selection

- ❖ From the line list, DSHS will select:
  - Up to 20 records of NHSN reported CLABSIs
  - 40 records of unreported candidate CLABSI events
    - 10 from NICU setting (if applicable)
    - 30-40 from adult/pediatric ICUs





# Summary of CLABSI Validation Process

1. Notify facility and request line list of positive blood cultures
2. Select medical records for review and notify facility
3. Select site visit date and send Facility Audit Survey for completion by facility prior to site visit.
4. Notify CEO/Administrator, DSHS Regulatory and Regional/Local Health Departments, and Regional HAI Epi about upcoming visit
5. Review Facility Audit Survey and perform site visit
  - Introductions/Entrance Interview
  - Chart Review
  - Debriefing/Conclusions
6. Send Validation Summary Report to IPs, CEO/Admin and other staff as needed.



# 2015 Validation Findings\*

## CLABSI:

- 723 records reviewed for CLABSI
- 25 (3.5%) Discrepancies noted (24/25 were initially missed by the facility)

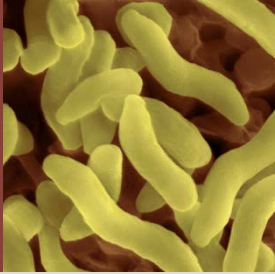
## SSI:

- 205 records reviewed for SSI
- 12 (6%) Discrepancies noted (11 were over-reported)
- 11 (5.4%) events were miscoded

## CAUTI:

- 30 records reviewed for CAUTI
- 1 (3.3%) Discrepancy noted (over-reported)

*\*Findings are preliminary as of 7/26/2016*

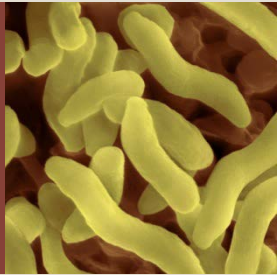


# HCS Team contacts

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# Questions

## POOCH CAFE

