healthcare-associated positive cultures were collected >48 hours from admission. **Results:** There were 5,374 admissions with urine cultures collected in 2023. The overall median SVI was 0.34. Compared to the statewide median overall vulnerability of 0.50[IQR: 0.25–0.75], our inpatient population resided in less vulnerable areas. When comparing patients with positive and negative urine cultures, the overall SVI, the four-specific SVI themes and SVI quartiles were similar. Unhoused patients were more likely to have a negative culture than a positive culture. Patients who identified as Asian were more likely to have a healthcare-associated positive urine culture than a community-associated positive culture. Patients who identified as Hispanic were more likely to have a community-associated positive culture than a healthcare-associated positive urine culture. Patients who identify as white or black had similar likelihood of developing a community-associated or healthcare-associated positive culture. **Discussion:** We did not find any differences in SVI among patients based on urine culture positivity. However, when stratified by community- vs healthcare-associated we found that patients who identify as Asian or Hispanic may be more likely to have a positive urine culture. These differences in outcomes are likely complex and multifaceted, potentially related to various social drivers of health present both before and during admission. Further exploration is needed to understand what is contributing to these findings.

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Table 1: Demographics and the Social Vulnerability Index of inpatients who had a urine culture collected from January 1, 2023 – December 31, 2023 at Stanford Health Care.

	All 2023 Admissions with a Urine Culture (N=5374)		Positive Urine Culture (N=2146)		Negative Urine Culture (N=3228)	
Demographics						
Median Age (years) (Q1-Q3)	68	(53–79)	71	(58–81)	65	(49–76)
Male, n (%)	2055	(38.2)	705	(32.9)	1350	(41.8)
Race & Ethnicity, n (%)						
Non-Hispanic White	2428	(45.8)	999	(47.2)	1429	(44.8)
Non-Hispanic Black	244	(4.6)	93	(4.4)	151	(4.7)
Asian	908	(17.1)	357	(16.9)	551	(17.3)
Hispanic	1255	(23.7)	491	(23.2)	764	(24.0)
Other	471	(8.9)	178	(8.4)	293	(9.2)
Unknown/Declined	68		28		40	
Geospatial Data Availability						
SVI geocoding matched, n (%)	4989	(92.8)	1999	(93.2)	2990	(92.6)
SVI unavailable	385	(7.2)	147	(6.9)	238	(7.4)
Reason Unavailable						
Unhoused	120	(31.2)	39	(26.5)	81	(34.0)
PO Box	156	(40.5)	68	(46.3)	88	(37.0)
No match	109	(28.3)	40	(27.2)	69	(29.0)
Social Determinants						
Overall SVI, median (IQR)	0.34	(0.16–0.58)	0.33	(0.15–0.57)	0.35	(0.16–0.58)
Quartiles, (n%)						
1st Quartile [<0.16]	1247	(25.0)	521	(26.1)	726	(24.3)
2nd Quartile [0.16 to <0.34]	1249	(25.0)	506	(25.3)	743	(24.9)
3rd Quartile [0.34 to <0.58]	1247	(25.0)	481	(24.1)	766	(25.6)
4th Quartile [≥0.58]	1246	(25.0)	491	(24.6)	755	(25.3)
Themes, median (IQR)						
Socioeconomic Status	0.25	(0.08–0.49)	0.22	(0.07–0.48)	0.26	(0.9– 0.53)
Household Characteristics	0.36	(0.19–0.61)	0.34	(0.17–0.61)	0.37	(0.19–0.62)
Racial and Ethnic Minority Status	0.48	(0.29–0.71)	0.48	(0.29–0.70)	0.47	(0.28–0.72)
Housing Type and Transportation	0.49	(0.22–0.71)	0.50	(0.22–0.72)	0.49	(0.22–0.71)

Table 2: Social Vulnerability Index, and timing of urine culture collection for 2023 Stanford Health Care inpatients who had a positive urine culture result.

	Community Acquired, N=1690 (78.9%)								Healthcare Associated N=452 (21.1%)							
	Overall SVI Tertiles								Overall SVI Tertiles							
	Low		Med		High		Total		Low		Med		High		Total	
Race & Ethnicity, n (%)																
Non-Hispanic White	508	(63.2)	165	(31.4)	61	(26.2)	734	(47.0)	108	(57.8)	62	(43.4)	25	(30.9)	195	(47.4)
Non-Hispanic Black	20	(2.5)	32	(6.1)	14	(6.0)	66	(4.2)	7	(3.7)	6	(4.2)	2	(2.5)	15	(3.6)
Asian	140	(17.4)	90	(17.1)	29	(12.5)	259	(16.6)	41	(21.9)	30	(21.0)	16	(19.8)	87	(21.2)
Hispanic	73	(9.1)	186	(35.4)	111	(47.6)	370	(23.7)	17	(9.1)	36	(25.2)	30	(37.0)	83	(20.2)
Other	63	(7.8)	53	(10.1)	18	(7.7)	134	(8.6)	14	(7.5)	9	(6.3)	8	(9.9)	31	(7.5)
Unknown/Declined	9		6		1		16		3		2		1		6	

Presentation Type:
Poster Presentation
Subject Category: Health Equity
Analyzing Social Vulnerability and ESBL Infection Rates at the Census-Tract Level in Tennessee, 2019–2023
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Background: There are numerous ways to measure social markers of health. One reliable method for predicting health outcomes is the social vulnerability index (SVI) which assesses multiple themes, including housing insecurity, socioeconomic status, and minority status. As a part of Multi-site Gram Negative Surveillance Initiative (MuGSI), surveillance of Extended-Spectrum Beta-Lactamase (ESBL)-producing Enterobacterales was conducted in four Tennessee counties (Maury, Marshall, Wayne, and Lewis). This study examines the association between social vulnerability and infection rates for ESBL-producing Enterobacterales within the surveillance area. **Method:** ESBL incident cases reported from July 2019 to December 2023 were analyzed. Cases were defined as the first isolation of Escherichia coli, Klebsiella pneumoniae, or Klebsiella oxytoca resistant to at least one extended-spectrum cephalosporin (ceftazidime, cefotaxime or ceftriaxone) and non-resistant to all carbapenem antibiotics from urine or normally sterile sites in residents of the surveillance area within a 30-day period. Pearson correlation analysis was conducted to evaluate the association between SVI scores and ESBL infection rates per 1,000 residents at the census tract level, as well as the four SVI ranking variables (socioeconomic status, household characteristics, racial & ethnic minority status, and housing type & transportation). Analysis was conducted using SAS 9.4. Geospatial analysis in ArcGIS Pro v2.9.7 produced a bivariate choropleth map, illustrating the interaction between SVI and ESBL infection rates. **Result:** From 2019–2023, 2,166 ESBL cases were reported. Cases were 21% male and 79% female, with mean age of 66 years. Incidence rates ranged from 0.19 to 19.5 per 1,000 population. The analysis revealed a significant positive relationship between SVI and tract-level ESBL infection rates. Higher vulnerability scores are associated with higher infection rates, as evidenced by the positive correlation coefficient (&#8477? = 0.38427, &#8477? = 0.0272). Pearson correlation analysis revealed that household type and transportation demonstrated statistically significant positive correlation with ESBL infection rates (&#8477? = 0.431, &#8477? = 0.0121). **Conclusion:**Information from geocoding surveillance data can be used to identify social groups at increased risk of infections with drug resistant pathogens. In this study, ESBL infection rate is significantly associated with SVI. Among the four themes, only household type & transportation status is found to be significantly associated with ESBL infection rates. Further research is needed to understand the role housing plays in the spread of ESBL infection, especially looking at both urban and rural populations. Using SVI scores as a risk assessment tool, infection preventionists and antibiotic stewards can prioritize high risk areas for intervention.

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Development, Delivery, and Evaluation of the Texas Epidemic Public Health Institute (TEPHI) Infection Control Lecture 200 Series
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Background: The Texas Epidemic Public Health Institute (TEPHI) aims to safeguard public health and bolster the economy by preparing for infectious disease outbreaks. The Infection Prevention and Control Webinar (IPC) 200 series of the Small Rural Healthcare Preparedness offers free educational resources and continuing education for public health and healthcare personnel responsible for infection prevention programs across ten lectures from requested topics from TEPHIs IPC 100 series. **Methods:** Data from the second year of the Infection Prevention and Control lecture series were collected using attendee registration and attendance data, knowledge assessments, and post-lecture evaluation surveys via WebEx®, QuestionPro®, and Microsoft Teams®. The modules were developed using resources from the Association for Professionals in Infection Control and Epidemiology (APIC), the Occupational Safety and Health Administration (OSHA), the Centers for Disease Control and