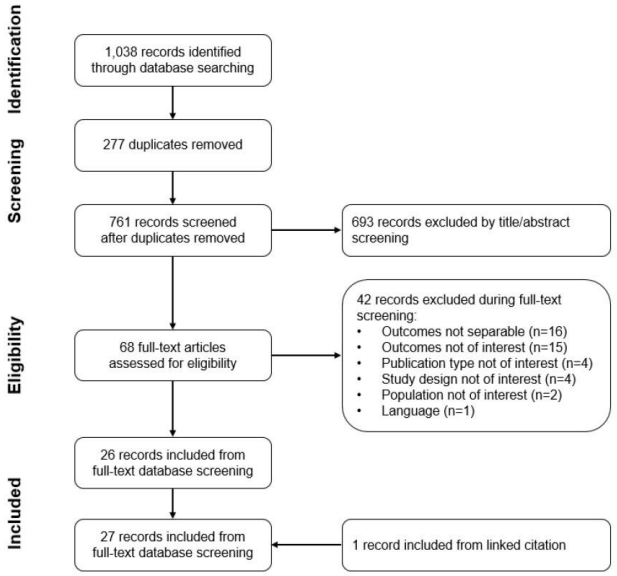
Results: The SLR identified 27 eligible articles (Figure), of which 17 studies (16 US, 1 UK) reported the economic burden of uuGC. The studies primarily reported cost data, with a subset reporting limited resource use. Lifetime costs for uuGC, when elaborated upon, considered the potential for pelvic inflammatory disease among women, and epididymitis in men, as well as lifetime medical costs associated with human immunodeficiency virus. Among the 16 studies reporting costs, the total estimated lifetime cost of uuGC in the US reached as high as $162.1 million. Costs varied vastly based on sex, with one study reporting lifetime estimates up to $163,433 for men but $7,534,692 for women in 2005. Nine studies described costs per patient/infection and found average costs ranging from $26.92–$438.46, though most fell in the range of $79–$354.

Figure. PRISMA flow diagram of study inclusion and exclusion



PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

Conclusion: We identified a large body of evidence detailing the economic burden of GC. The cost burden varied by sex and was higher for females. However, the vast majority of the evidence came from the US, highlighting the need for more global research.

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187. Regional Distribution of Antimicrobial Resistance Among Outpatient Urine *e. Coli* Isolates in US Females ≥12 Years of age: a Multicenter Evaluation in 2019

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Session: O-36. STIs & UTIs

Background: The 2019 CDC Threats Report lists extended spectrum β-lactamase (ESBL) producing *Enterobacterales* as a serious health threat. While the clinical epidemiology of uncomplicated urinary tract infection (uUTI) has remained stable, there has been a notable increase in antimicrobial resistance (AMR) among community-acquired uUTIs. Urine cultures are seldom ordered for uUTI as treatment is often empiric; local surveillance data may therefore be lacking. The study objective was to determine the prevalence and geographic distribution of AMR in urine *E. coli* isolates from females in the US outpatient setting.

Methods: A retrospective cross-sectional study of *E. coli* ambulatory urine isolates identified from females (≥ 12 years of age) at 296 facilities, with ≥ 1 quarter of data in 2019 (BD Insights Research Database, Franklin Lakes, NJ). Initial isolates representing each distinct susceptibility pattern within 30 days of index urine were included. *E. coli* isolates were identified as not-susceptible (NS) if intermediate/resistant to trimethoprim-sulfamethoxazole (TMP-SMX), fluoroquinolone (FQ), nitrofurantoin (NFT), ESBL+ (by commercial panels or intermediate/resistant to ceftriaxone, cefotaxime, ceftazidime or cefepime), and multi-drug resistant, defined as NS to ≥ 2 or ≥ 3 of FQ, TMP-SMX, NFT or ESBL+. Logistic regression models were used to evaluate resistance prevalence and variation across US census regions.

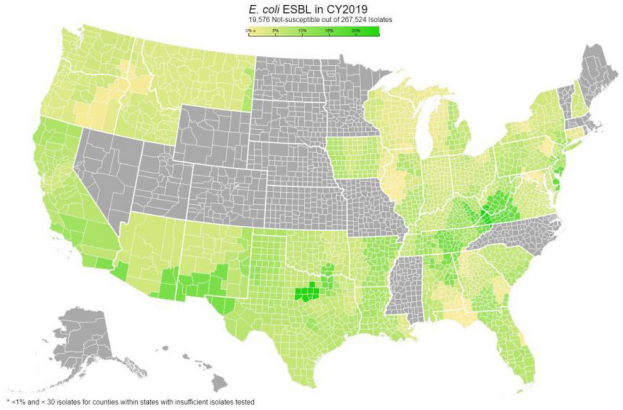
Results: Of 267,524 non-duplicate *E. coli* isolates evaluated, 25.1% (67,189) were TMP-SMX NS, 20.3% (54,359) were FQ NS, 7.3% (19,576) were ESBL+, 3.5% (9,453) were NFT NS, 14.0% (37,328) were NS to ≥ 2 drugs and 4.0% (10,814) were NS to ≥ 3 drugs. For all phenotypes, there was significant variation in resistance across census regions (all P< 0.001) with the highest in the East South Central region and lowest in the New England region of the US (Table). The figure shows regional prevalence of ESBL+ *E. coli* in 2019.

Table. Antimicrobial resistance data from 30-day non-duplicate urine E. coli isolates in females ≥12 years old in 2019, by US census region.

US Census Region (n=facilities)	Total *E. coli* Isolates Tested, n	Phenotype Category, % (n)					
		ESBL+	NFT NS	FQ NS	TMP/SMX NS	≥2 Drug NS	≥3 Drug NS
	267,524	**7.3 (19,576)**	**3.5 (9,453)**	**20.3 (54,359)**	**25.1 (67,189)**	**14.0 (37,328)**	**4.0 (10,814)**
New England (n=4): CT, MA, ME, NH, RI, VT	4,981	4.6 (229)	2.9 (144)	12.7 (632)	17.0 (848)	7.6 (377)	2.1 (105)
Middle Atlantic (n=48): NJ, NY, PA	45,634	7.5 (3,428)	3.6 (1,636)	20.4 (9,301)	22.4 (10,228)	13.5 (6,154)	4.4 (2,008)
East North Central (n=52): IL, IN, MI, OH, WI	67,287	5.5 (3,706)	3.2 (2,139)	16.0 (10,735)	21.6 (14,513)	10.6 (7,119)	3.1 (2,080)
West North Central (n=8): IA, KS, MN, MO, ND, NE, SD	5,839	6.2 (360)	3.2 (188)	14.4 (839)	22.4 (1,307)	11.0 (641)	2.6 (153)
South Atlantic (n=41): DE, DC, FL, GA, MD, NC, SC, VA, WV	35,786	6.9 (2,480)	3.8 (1,353)	22.7 (8,124)	27.1 (9,705)	15.3 (5,475)	4.0 (1,441)
East South Central (n=48): AL, KY, MS, TN	26,691	9.7 (2,583)	4.4 (1,176)	25.5 (6,819)	30.5 (8,131)	18.4 (4,911)	5.9 (1,581)
West South Central (n=52): AR, LA, OK, TX	40,999	8.4 (3,442)	3.2 (1,308)	23.1 (9,482)	28.5 (11,669)	16.2 (6,625)	4.4 (1,812)
Mountain (n=11): AZ, CO, ID, MT, NM, NV, UT, WY	10,676	6.6 (709)	4.2 (448)	18.0 (1,920)	23.8 (2,538)	12.9 (1,378)	3.1 (330)
Pacific (n=32): AK, CA, OR, WA	29,631	8.9 (2,639)	3.6 (1,061)	22.0 (6,507)	27.8 (8,250)	15.7 (4,648)	4.4 (1,304)

≥2 Drug NS, not-susceptible to ≥2 drug classes; ≥3 Drug NS, not-susceptible to ≥3 drug classes; AK, Alaska; AL, Alabama; AR, Arkansas; AZ, Arizona; CA, California; CO, Colorado; CT, Connecticut; DE, Delaware; DC, District of Columbia; ESBL+, extended spectrum beta-lactamase positive; FL, Florida; FQ, fluoroquinolone; GA, Georgia; IA, Iowa; ID, Idaho; IL, Illinois; IN, Indiana; KS, Kansas; KY, Kentucky; LA, Louisiana; MA, Massachusetts; MD, Maryland; ME, Maine; MI, Michigan; MN, Minnesota; MO, Missouri; MS, Mississippi; MT, Montana; NC, North Carolina; ND, North Dakota; NE, Nebraska; NFT, nitrofurantoin; NH, New Hampshire; NJ, New Jersey; NM, New Mexico; NS, not-susceptible; NV, Nevada; NY, New York; OH, Ohio; OK, Oklahoma; OR, Oregon; PA, Pennsylvania; RI, Rhode Island; SC, South Carolina; SD, South Dakota; TMP-SMX, trimethoprim-sulfamethoxazole; TN, Tennessee; TX, Texas; US, United States; UT, Utah; VA, Virginia; VT, Vermont; WA, Washington; WI, Wisconsin; WV, West Virginia; WY, Wyoming.

Figure. Heat map of the overall US geographic distribution of ESBL+ E. coli (30-day non-duplicate urine isolates) from females across 296 acute care facilities in 2019.



CY, calendar year; ESBL, extended spectrum beta-lactamase positive; US, United States.

Conclusion: The 2019 prevalence of AMR in non-duplicate ambulatory *E. coli* urine isolates was notable: TMP-SMX NS and FQ NS were > 20%. In addition, there were significant regional differences in resistance, with the highest in the East South Central region of the US, for all NS phenotypes. These analyses inform, and may optimize, empiric treatment of uUTI and patient outcomes.

Disclosures: Vikas Gupta, PharmD, BCPS, Becton, Dickinson and Company (Employee, Shareholder)GlaxoSmithKline plc. (Other Financial or Material Support, Funding) Aruni Mulgirigama, MBBS, GlaxoSmithKline plc. (Employee, Shareholder) Ashish V. Joshi, PhD, GlaxoSmithKline plc. (Employee, Shareholder) Nicole Scangarella-Oman, MS, GlaxoSmithKline plc. (Employee, Shareholder) Kalvin Yu, MD, Becton, Dickinson and Company (Employee)GlaxoSmithKline plc. (Other Financial or Material Support, Funding) Anthony Boyles, MSc, Becton, Dickinson and Company (Employee)GlaxoSmithKline plc. (Other Financial or Material Support, Funding) Fanny S. Mitrani-Gold, MPH, GlaxoSmithKline plc. (Employee, Shareholder)

188. The Role of Bone Pathology in the Management of Residual Osteomyelitis After Amputation for Diabetic Foot Infections

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Session: O-37. Skin, Soft Tissue, Bone & Joint Infections

Background: Diabetic foot osteomyelitis is a common infection often treated by a combination of antibiotic therapy and limb-sparing amputation. During amputation, IDSA guidelines recommend histopathological analysis of the proximal resection margin, but there are few studies evaluating the prognostic value of such analysis. We did a retrospective cohort study to evaluate whether histopathologic findings predict the clinical outcomes of further proximal amputation or death.