Poster 11: Neighborhood-level housing and transportation vulnerability negatively impacts the timely treatment of cervical cancer

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Topic

Financial Toxicity and Disparities

Objectives

While cervical cancer incidence is declining due to screening and vaccination, vulnerable populations continue to experience higher incidence and mortality. Access to timely screening, diagnosis, and treatment is critical to reducing mortality, but social determinants of health (SDOH) can create barriers to care. This study assesses the impact of SDOH on delays in cervical cancer diagnosis and treatment.

Methods

A retrospective study was conducted of patients diagnosed with cervical cancer at a single academic institution after IRB approval. Electronic medical records provided sociodemographic, tumor, and treatment data. Social Vulnerability Index (SVI) was calculated using patient home addresses. Time from symptom onset to diagnosis and treatment initiation was calculated. Timely and delayed intervals were defined as first to third quartiles (Q1-Q3) and the fourth quartile (Q4), respectively. Chi-square, Fisher's exact tests and independent t-tests were used to assess for associations between SDOH variables and delays, for categorical and continuous variables as appropriate.

Results

Between 01/2022 and 02/2024, 71 patients were diagnosed with cervical cancer. Mean age was 51.6 years. Patients were Hispanic (44.3%) White (28.6%), Black (21.4%), and Asian (5.7%); 20% primarily spoke Spanish. Most had private insurance (53.5%) while 33.8% had government-funded insurance. Median distance to the hospital was 14.2 miles (IQR=23.2). Squamous cell carcinoma was the most common histology (77.5%), and 68.6% had advanced-stage disease at diagnosis. Vaginal bleeding was the most common presenting symptom (67.6%). The mean time to diagnosis from symptom onset was 5.6 months (SD=6.9), and mean time to treatment was 7.1 months (SD=6.9). Individual SDOH variables were not associated with delays, but high neighborhood-level housing and transportation vulnerability was associated with delay in treatment initiation (p=0.04).

Conclusions

Housing and transportation vulnerability was associated with delayed cervical cancer treatment, possibly due to poor housing conditions, crowding, and lack of transportation. These findings highlight the need for targeted interventions to fulfill the health needs of the most vulnerable populations and avoid crucial delays in cervical cancer management.

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Abstract Table or Graph

Table 1. Association between SDOH and delay in treatment from symptom onset (N=47)

		Timely (N%)	Delayed (N%)	P-value
Race	Asian	2 (50.0)	2 (50.0)	0.49
	Black	2 (25.0)	6 (75.0)	
	Hispanic	5 (25.0)	15 (75.0)	
	White	2 (14.3)	12 (85.7)	
BMI (kg/m^2)		26.6	27.3	0.79
Insurance	Government*	14 (73.7)	5 (26.3)	0.70
	Private	20 (76.9)	6 (23.1)	
	Self-pay	2 (100.0)	0 (0.0)	
Distance from hospital (median, miles)		57.1	30.7	0.29
Marital status	Single	22 (78.6)	6 (21.4)	0.70
	Partnered	14 (73.4)	5 (26.3)	
Language	English	29 (82.9)	6 (17.1)	0.08
	Non-English	7 (58.3)	5 (38.4)	
Smoking	Current	9 (81.2)	2 (18.2)	0.15
	Former	4 (50.0)	4 (50.0)	
	Never	23 (82.1)	5 (17.9)	
First encounter setting	Inpatient	15 (65.2)	8 (34.8)	0.07
	Outpatient	21 (87.5)	3 (12.5)	
Socioeconomic status SVI	High	6 (66.7)	3 (33.3)	0.54
	Not high	30 (78.9)	8 (21.1)	
Household SVI	High	7 (70.0)	3 (30.0)	0.58
	Not high	29 (78.4)	8 (21.6)	
Minority SVI	High	7 (63.6)	4 (36.4)	0.25
	Not high	29 (80.6)	7 (19.4)	
Housing/Transportation SVI	High	6 (54.5)	5 (45.5)	**0.04**
	Not high	30 (83.3)	6 (16.7)	
Overall SVI	High	5 (62.5)	3 (37.5)	0.30
	Not high	31(79.5)	8 (20.5)	

**Government: includes Medicaid and Medicare*
Abbreviations: SVI, social vulnerability index