

# Barriers and Facilitators of Cancer Screening Among Firefighters in a Large Fire Department in Southeast Texas: A Qualitative Study



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## BACKGROUND

- Firefighters are a high-risk occupational group with well-documented elevated cancer incidence and mortality due to repeated exposure to carcinogens.
- However, adherence to recommended cancer screening among firefighters falls below national benchmarks.
- This qualitative study explored the determinants of cancer screening among Houston Fire Department (HFD) firefighters.

## METHODS

- In collaboration with HFD leadership, we recruited active-duty HFD firefighters across multiple ranks to participate (e.g., firefighters, captains, officers, chiefs).
- We used department-wide emails, flyers, bulletins, and newsletters to recruit for the study.
- Participants completed individual or group interviews either via Microsoft Teams or in person between May and September 2026
- Interview questions assessed:
  - Cancer risk and awareness of screening guidelines
  - Cancer prevention and control behaviors
  - Perceptions of cancer susceptibility and severity
  - Attitudes toward screening
  - Occupational and cultural norms
- We used rapid qualitative methods to analyze the transcripts, including structured summary templates and team-based matrices, to identify key barriers and facilitators of cancer screening.

## RESULTS

- We completed 13 interviews with 41 firefighters.
- Findings identified factors influencing cancer screening behavior across individual and organizational levels.
- **Individual-level** facilitators included perceived cancer risk, whereas fear of screening results and lack of awareness of screening guidelines were identified as barriers.

### Perceived cancer risk:

“For me, I kind of feel like we know which ones firemen are prone to, and every time I try to go and get screenings for those things, my primary care doctor or so whatever says, well, you don't meet the criteria for that.”

### Fear of screening results:

“Probably just fear..of like what the results could potentially be.... Yeah, yeah, absolutely.”

### Awareness of screening recommendations for firefighters:

“Ohh, not much, not much, to be honest.”

- **Organizational-level** facilitators included ability to complete screening during shift and integration of screening with HFD wellness services. Limited availability of on-site screening, time constraints, and limited insurance coverage were reported as barriers.

### Health insurance as a barrier to screening:

“I wish it was easier especially with our occupation to not fight with insurance on getting these screenings done because let's say a colonoscopy screening, you know, colon cancer is on the rise. We're firefighters. Our chances of cancer are already higher. So why doesn't insurance let us do the testing earlier and not 50 is when most people start doing it.”

### The role of screening on/off duty:

“I'll push back against the using 12 hours of wellness to do it. If you want that, sure, but if you offered to us on duty, we need to go on duty. Tons of other departments have done it. If you tell us we can't go on duty, that's fine, but don't dangle the carrot out there. And then when it doesn't come through, be like, but you can use the time we have.”

## CONCLUSIONS

- Cancer screening behaviors among firefighters are influenced by multilevel factors.
- Our findings identify key factors to address when developing interventions to promote cancer screening in this high-risk population.