

Introduction

- Advancements in cancer research hinge upon the involvement of patients in clinical trials, which has been shown through sources over the years to be underwhelming. A method for increasing the enrollment in cancer clinical trials would consequently see the development of cancer therapeutics, care, and treatment strategies.
- Clinical trial participation barriers are either patient or hospital based. Attitudinal barriers are associated with patients; hospital induced barriers are structural (trial availability), clinical (eligibility), and physician (trial offer) based; and demographic characteristics can be deemed as either hospital or patient barriers.
- It has been estimated that <5% of adult cancer patients enroll in cancer clinical trials and 75% of these patients experience a structural or clinical barrier to clinical trials; on the other hand, the rate at which patients experience physician barriers is unknown.
- We hypothesize the proportion of patients experiencing structural or clinical barriers in the Gulf South CTN to be greater than the 75% estimation. Through this analysis, we will determine if characteristics of the facilities in this network are associated with patient barriers and can lead to potential solutions for clinical trial enrollment.

Methods

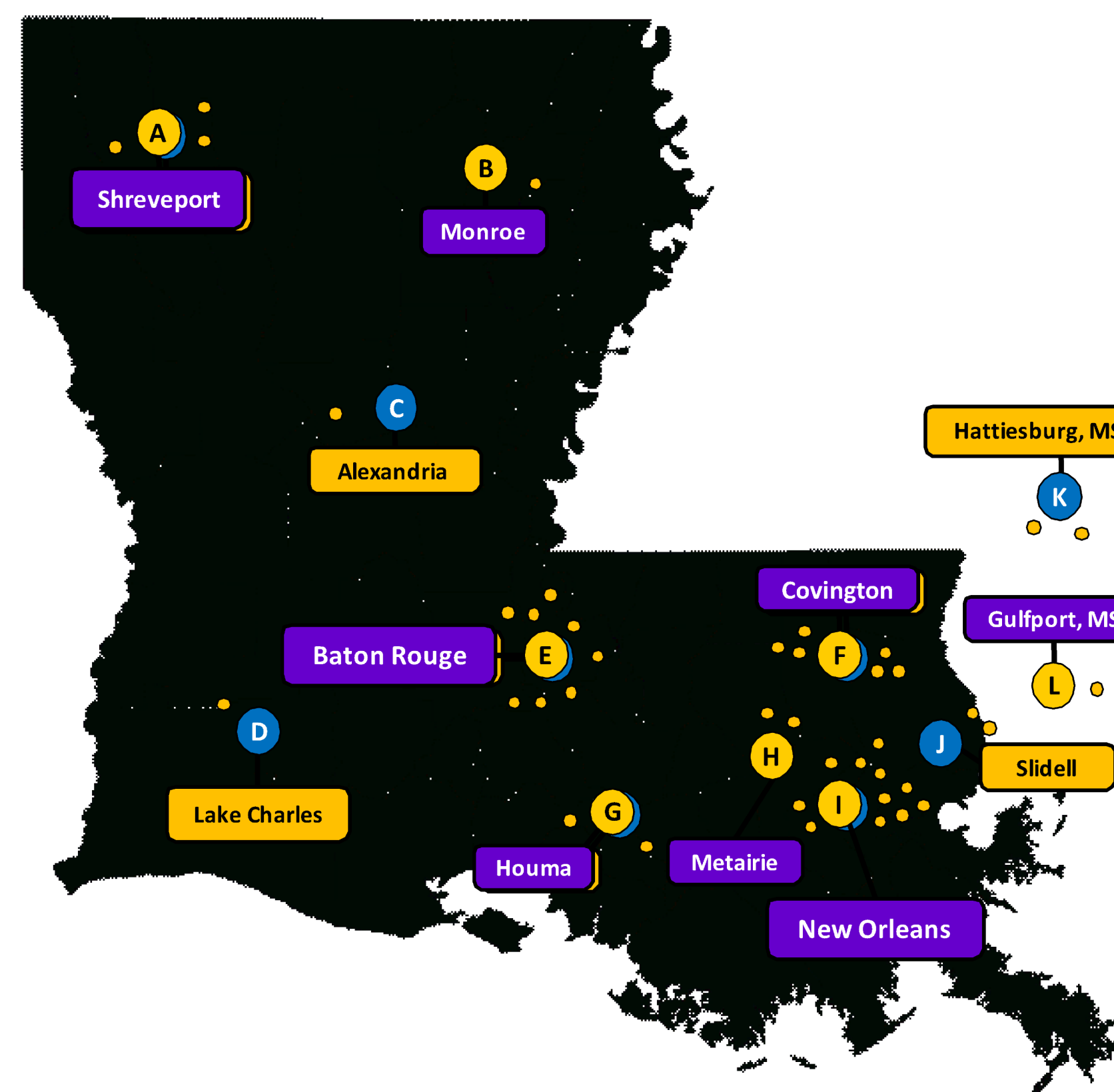


Figure 1: Map of Gulf South Clinical Trials Network facilities throughout of Louisiana and Mississippi.

- A total of 5132 patients were screened for a cancer treatment clinical trial between August 2018 and July 2020 in the Gulf South CTN across 27 facilities. Information regarding these patients was condensed and summarized before conducting analysis.
- Patients' demographic characteristics and whether they were screened, offered, and enrolled in a clinical trial was collected at which facility.
- Facilities of the Gulf South CTN were divided into three categories – clinics, hospitals, and public hospitals (safety-net and other government hospitals) – and outcomes were compared using multilevel or hierarchical logistic regression model.

Results

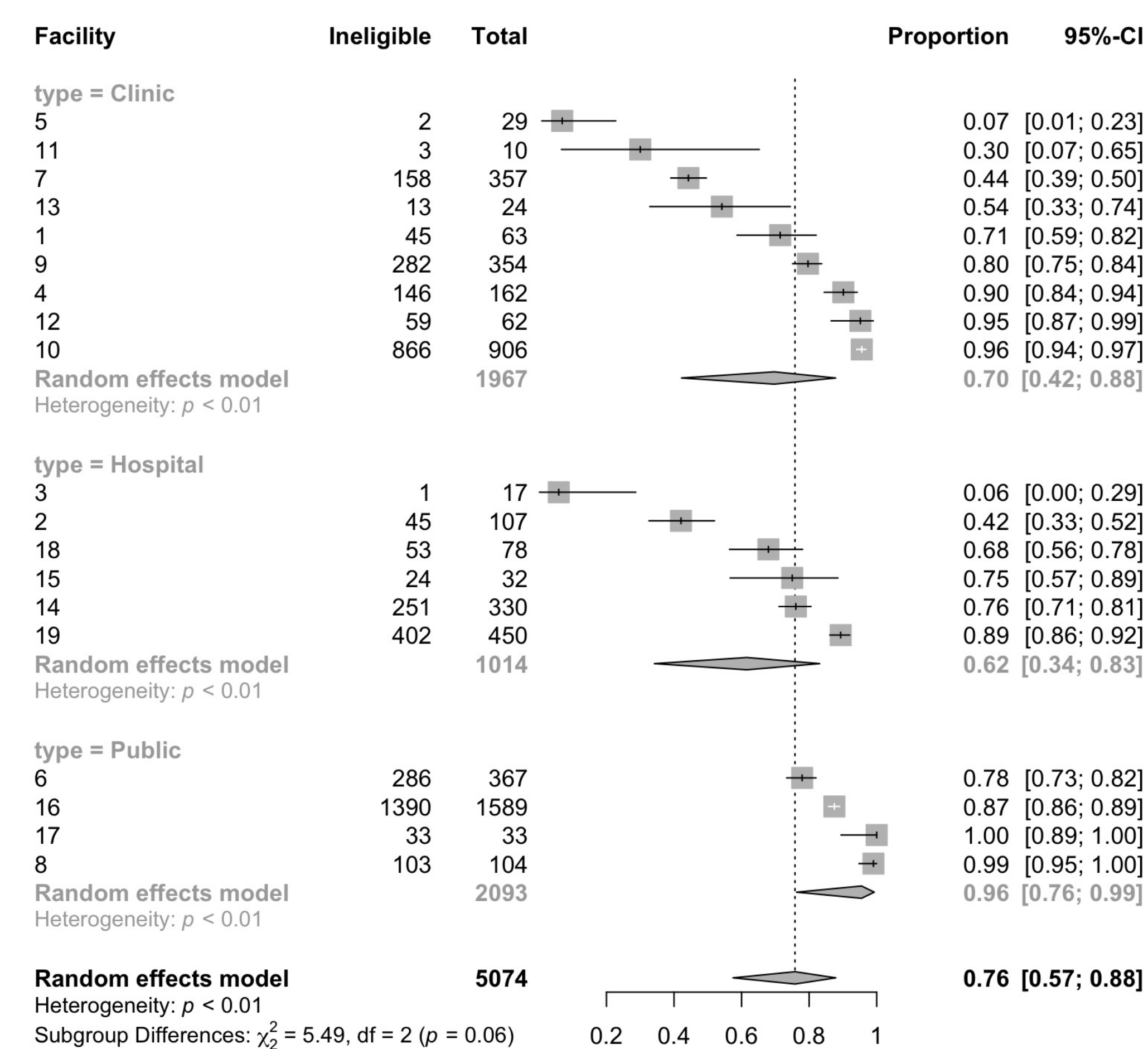


Figure 2. Rates of ineligibility in cancer treatment clinical trial screenings.

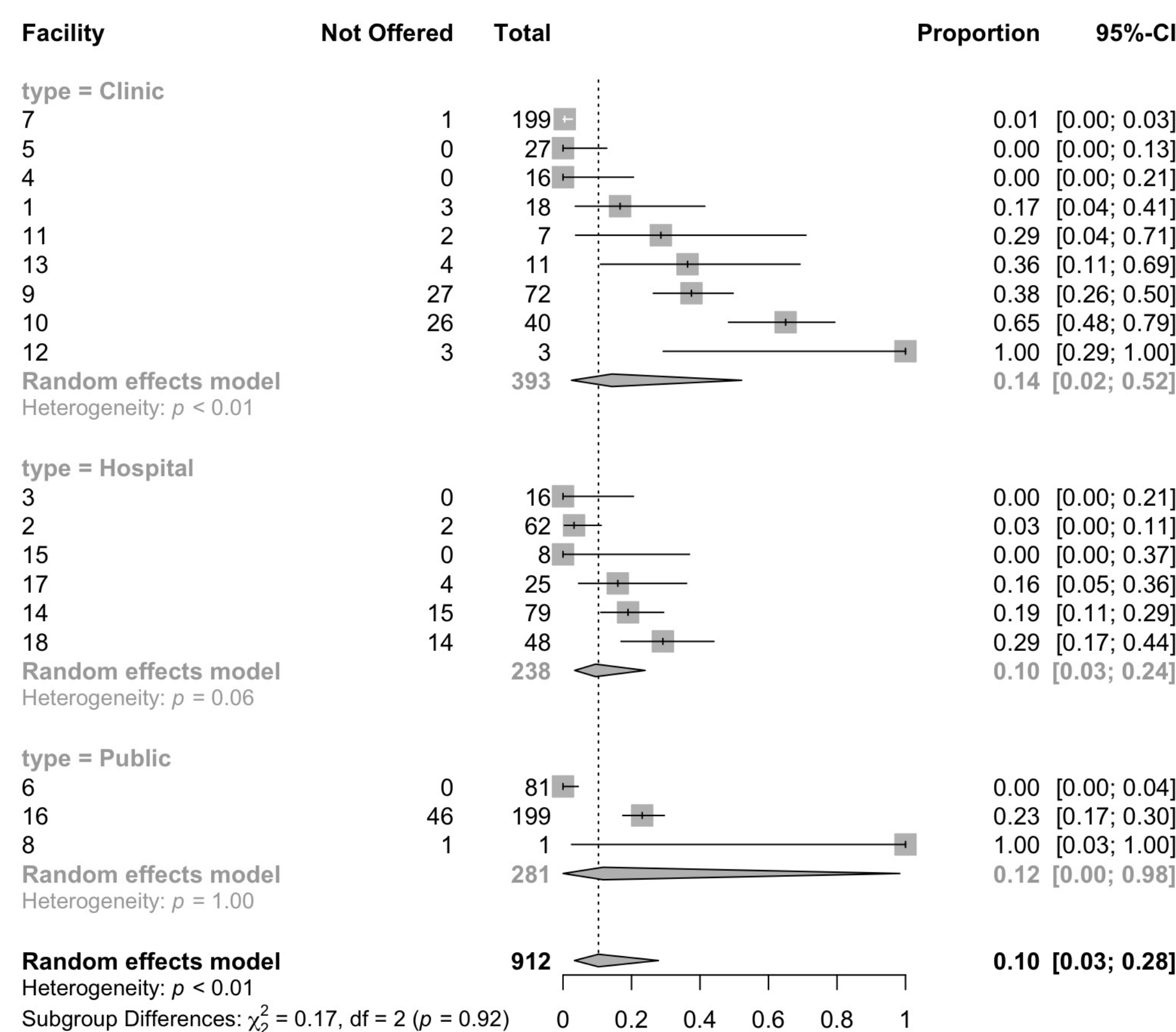


Figure 3. Rates in which physicians chose not to offer patients the opportunity to participate in cancer treatment clinical trials.

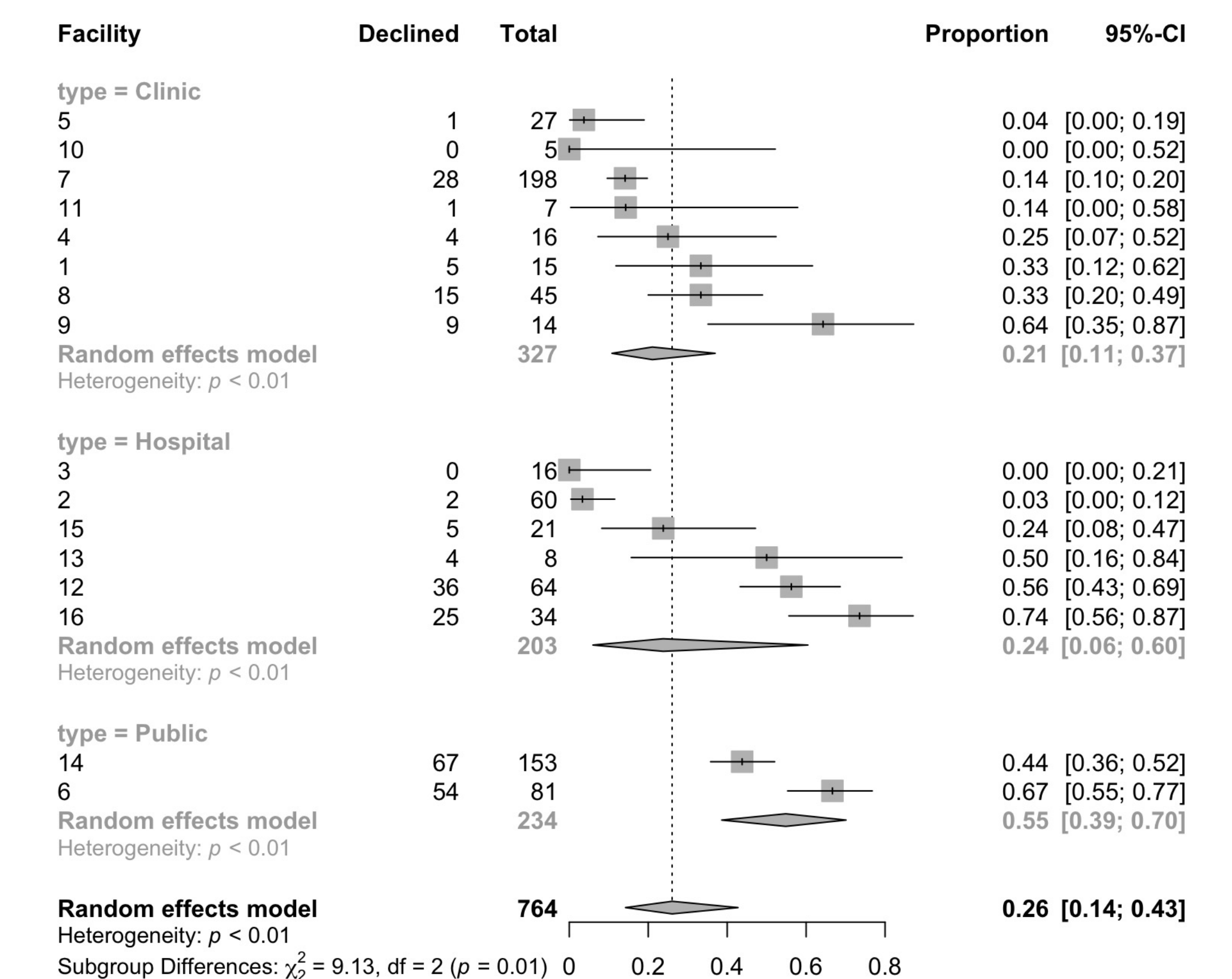


Figure 4. Rates in which patients declined to participate in cancer treatment clinical trials.

- Facilities with fewer than 10 patients screened for treatment trials over two years were excluded from the analysis to prevent selection bias, therefore, 5074 patients from 19 facilities were included in analysis.
- Approximately 82% of patients experienced a clinical or physician barrier from the Gulf South CTN.
- When comparing the calculated p-values with our alpha (0.05), we determine that there was no significant difference between facility types with respect to rate of ineligibility and rate of not being offered a trial. On the other hand, the rate of patient declining showed a significant difference, with public hospitals having the highest rate (55%).

Conclusions

- These results suggest that public facilities throughout the Gulf South CTN have the greatest barriers and, consequently, lowest clinical trial participation rate.
- There is a large variation of cancer clinical trial enrollment across all types of facilities. This may be in part due to screening practices like selective screening, which would lead to nonrepresentative data.

References

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- Unger, Joseph M., Elise Cook, Eric Tai, and Archie Bleyer. "Role of Clinical Trial Participation in Cancer Research: Barriers, Evidence, and Strategies." *American Society of Clinical Oncology educational book. American Society of Clinical Oncology. Meeting 35* (2016): 185–198.
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