

ABSTRACT

Background: Latent tuberculosis infection (LTBI) is high among the immigrant and refugee population. Effective treatment of latent TB infection (LTBI) is an essential component towards eliminating tuberculosis. A recent study done at University of Louisville Global Health Center showed treatment adherence rate among the refugee population seen at the University of Louisville was only 40%, consistent with the suboptimal treatment completion rates nationally. This study aims to identify the barriers for treatment initiation and adherence in our refugee population, in order to provide tailored strategies to improve the rate of treatment initiation and completion.

Methodology: We conducted a secondary data analysis of the Newly Arriving Refugee Surveillance System database. Refugees seen at the University of Louisville Refugee Health Program with LTBI who did not complete or initiate treatment from 2013-2015 were included.

Results: A total of 45 refugees screened positive for LTBI. Among the refugees with LTBI 27/45 (60%) never started or completed treatment. From the 27 that never started or completed treatment we were able to contact 12 (44%). The most common barriers to treatment included lack of understanding, language, and access to transportation.

Conclusion: Among the 60% of refugees who never started or completed treatment, the most common barriers identified were cultural and language barriers and transportation issues. This suggests that a culturally competent multidisciplinary team approach is necessary in order to overcome the cultural barriers to treatment as well as the social limitations that lead to poor treatment initiation, adherence and completion rates.

INTRODUCTION

- Tuberculosis (TB) remain one of the major challenging global health's issues infecting one third of the world's population and ranked second leading cause of death from an infectious agent, after human immunodeficiency virus (HIV) (1).
- An estimated of 10 to 15 million people have LTBI, of these, 5-10% are at risk of progressing to active disease (2).
- The percentage of TB cases encountered among foreign-born individuals increased from 29% in 1992 to 65% in 2013 (3).
- More than half of active TB cases in the United States currently occur among foreign-born individuals (4,5), and most cases result from reactivation of LTBI (6,7).
- Migration is one of the most influential factors in the spread of TB in the United States (8).
- Effective treatment of latent TB infection (LTBI) is an essential component for eliminating TB (9), particularly among immigrant population and adherence to the full course of treatment is an important determinant for the successful control of TB infection.
- Several studies have examined acceptance and adherence to treatment among patients in the United States. In general, completion rates were lower among immigrants and has been linked to a wide range of factors (10).
- Since the untreated groups of refugees pose as among the highest risk of developing active TB, we at the University of Louisville Global Health Clinic conducted a study to assess and define the percentage of refugees coming to the Global Health Clinic who were diagnosed and completed treatment for LTBI infection.

OBJECTIVES

As a follow up to our initial study, the aim of this study is to understand and identify the barriers that lead to the poor treatment adherence rate among the refugee community in Kentucky.

METHODS

- A Secondary data analysis of the newly arriving refugee surveillance system database used to include all newly arriving refugees who screened positive for LTBI from January 2013 to February 2014 were included.
- A survey was used to assess and identify the reasons and barrier for LTBI non-adherence.
- Collected data were analyzed using SAS and Tableau software.

RESULTS

- Among the 581 refugees that we screened for LTBI in our clinic, 45 (8%) were positive for LTBI. Among those refugees tested positive for LTBI; 27/45 (60%) never started or completed treatment. Among these 27 patients we were able to contact 12 (44%).
- **Figure 1** displays the demographic representation by language for these 27 patients with LTBI.
- **Figure 2** shows perception and knowledge about LTBI. More than half of these patients (50%) have inadequate or lack of knowledge about LTBI. Whereas (41%) have lack of knowledge that LTBI can convert to active TB; and (25%) have lack of knowledge that LTBI need to be treated.
- **Figure 3** demonstrate the barriers to follow up with Health department for LTBI management which include; language barrier (40%), work schedule conflict (20%), difficulties to access transportation (20%), and lack of knowledge regarding need to treat LTBI (20%).
- **Figure 4** shows the reasons for declining LTBI treatment which include: lack of knowledge of treatment necessity in (50%), work schedule conflicts (25%) and difficulties to access medicine (25%).

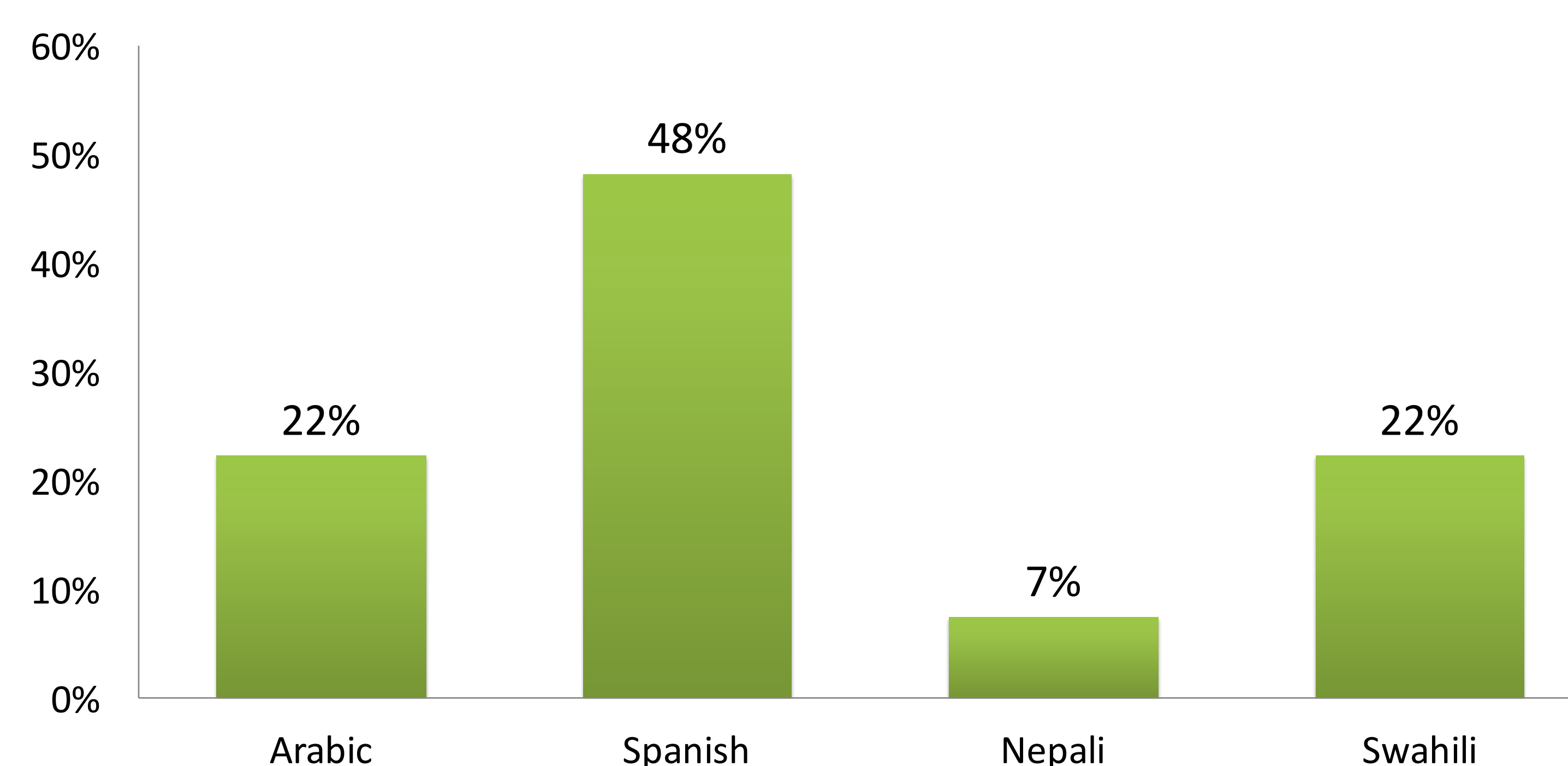


Figure 1. Demographic representation by language

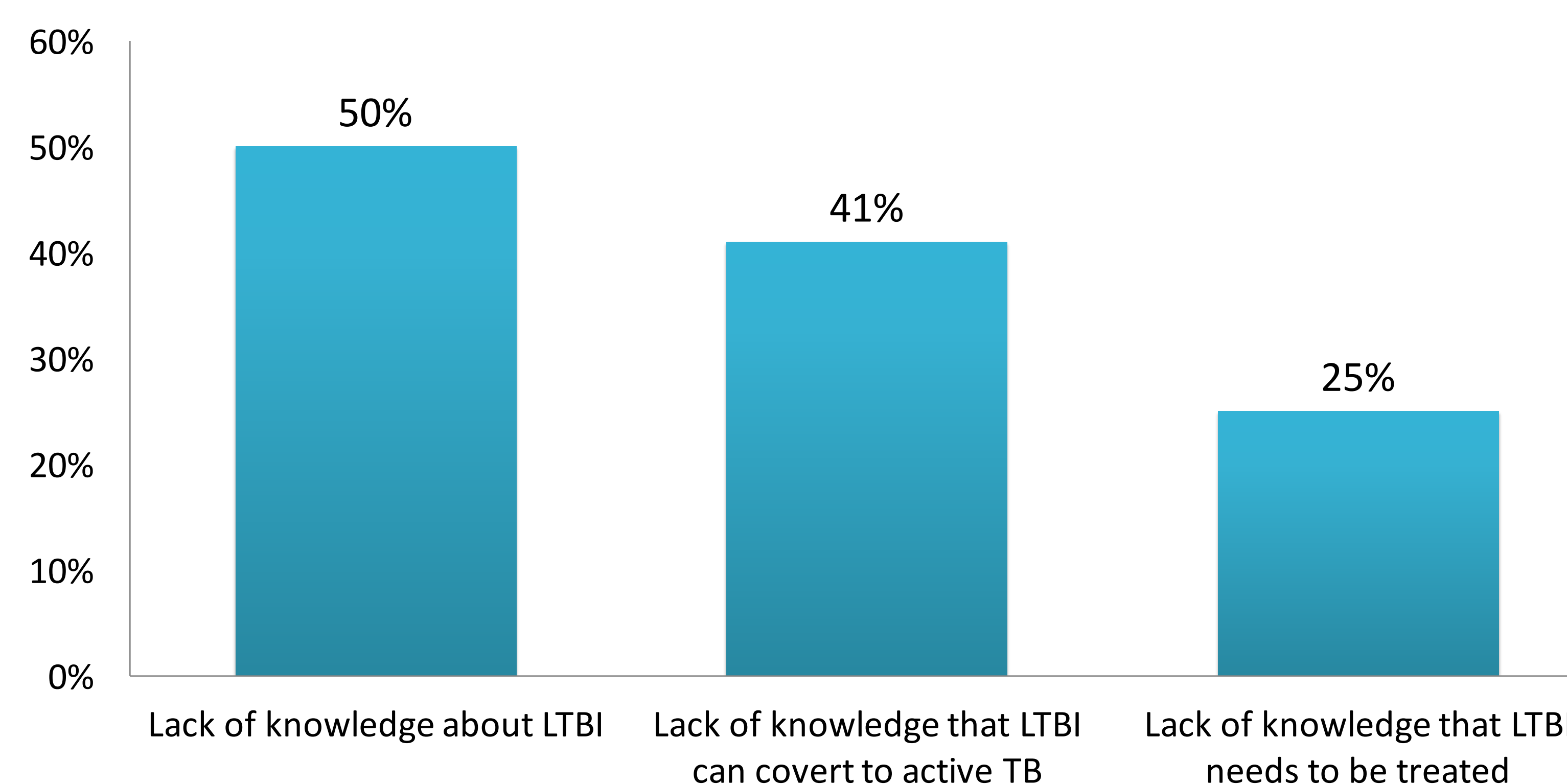


Figure 2. Perception and knowledge about LTBI.

RESULTS CONTINUED

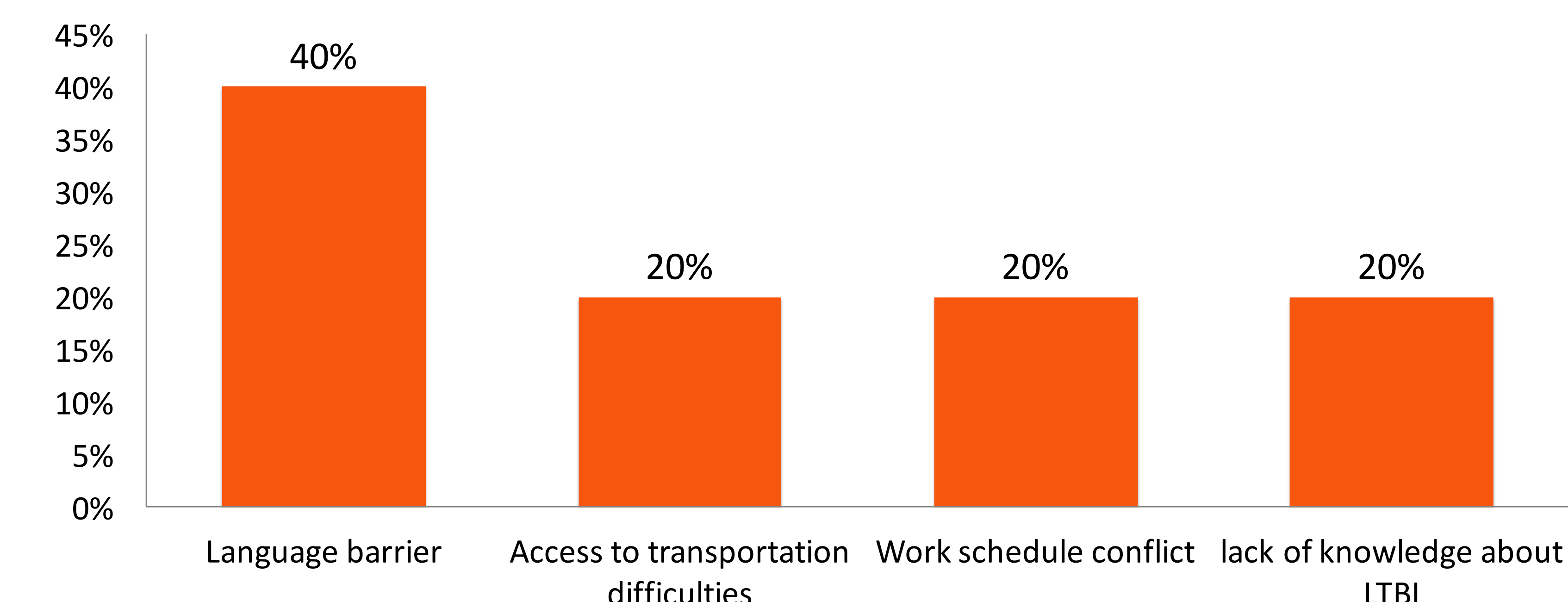


Figure 3. Barriers to LTBI management

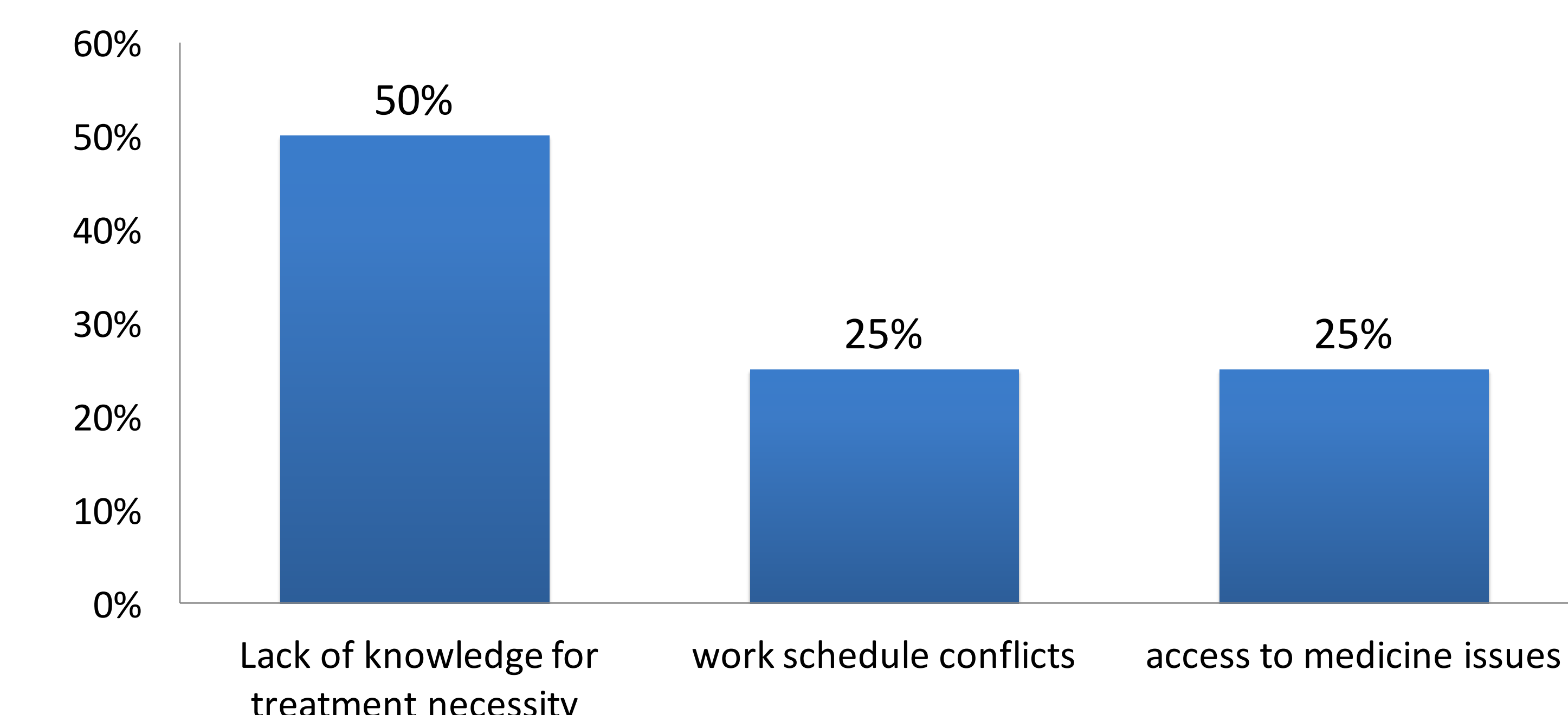


Figure 4. Reasons for not accept treatment for LTBI

CONCLUSIONS

This study shed light on some of the barriers for LTBI adherence among the newly arrived refugee in Kentucky. Among the 60% of refugees who never started or completed treatment, the most common barriers identified were language barriers, transportation issues and lack of knowledge about LTBI issues. This suggests that a culturally competent multidisciplinary team approach is necessary in order to overcome the cultural barriers to treatment as well as the social limitations that lead to poor treatment initiation, adherence and completion rates. Enhancing interpretation service, more flexibility in scheduling appointment, and closer collaboration with patient referral services may be required to improve rate of adherence of LTBI treatment.

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