

Rates of Completion of Treatment for Latent TB Infection in Healthcare Workers in University Hospital Galway

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Background

An estimated 23% of the world's population and 13.7% of Europe's population have latent TB infection (LTBI)¹. If LTBI patients take preventative therapy, TB reactivation rates can be substantially reduced by up to 90%².

Adherence to treatment is critical for controlling spread of infection and minimizing development of drug resistance. Healthcare workers (HCWs), due to their sustained occupational exposure to MTB, face a higher risk of LTBI and active tuberculosis³. The WHO recommends 6 or 9 months of isoniazid or 3-4 months of rifampicin as monotherapy options for treatment of LTBI. WHO End TB Strategy prioritises LTBI screening and treatment in high-risk groups, including HCWs. The TB clinic in UHG is increasingly providing care of new entrant HCWs referred by occupational health (OH) with LTBI.

Objectives

The aim of this study was to determine rates of treatment completion for LTBI, in HCWs in the TB clinic in University Hospital Galway.

Methods

A retrospective chart review was undertaken in the TB clinic and approved by the ethics committee. Included were HCWs with LTBI referred by Occupational Health from January to December 2023. LTBI was defined as a positive IGRA test and a normal chest Xray. Comparative analysis was conducted using Chi Square and Student T test.

Results

94 HCWs were referred to the TB clinic in 2023. Age range was 20 to 62 years (Mean = 36.5 years, SD=7.8 years).

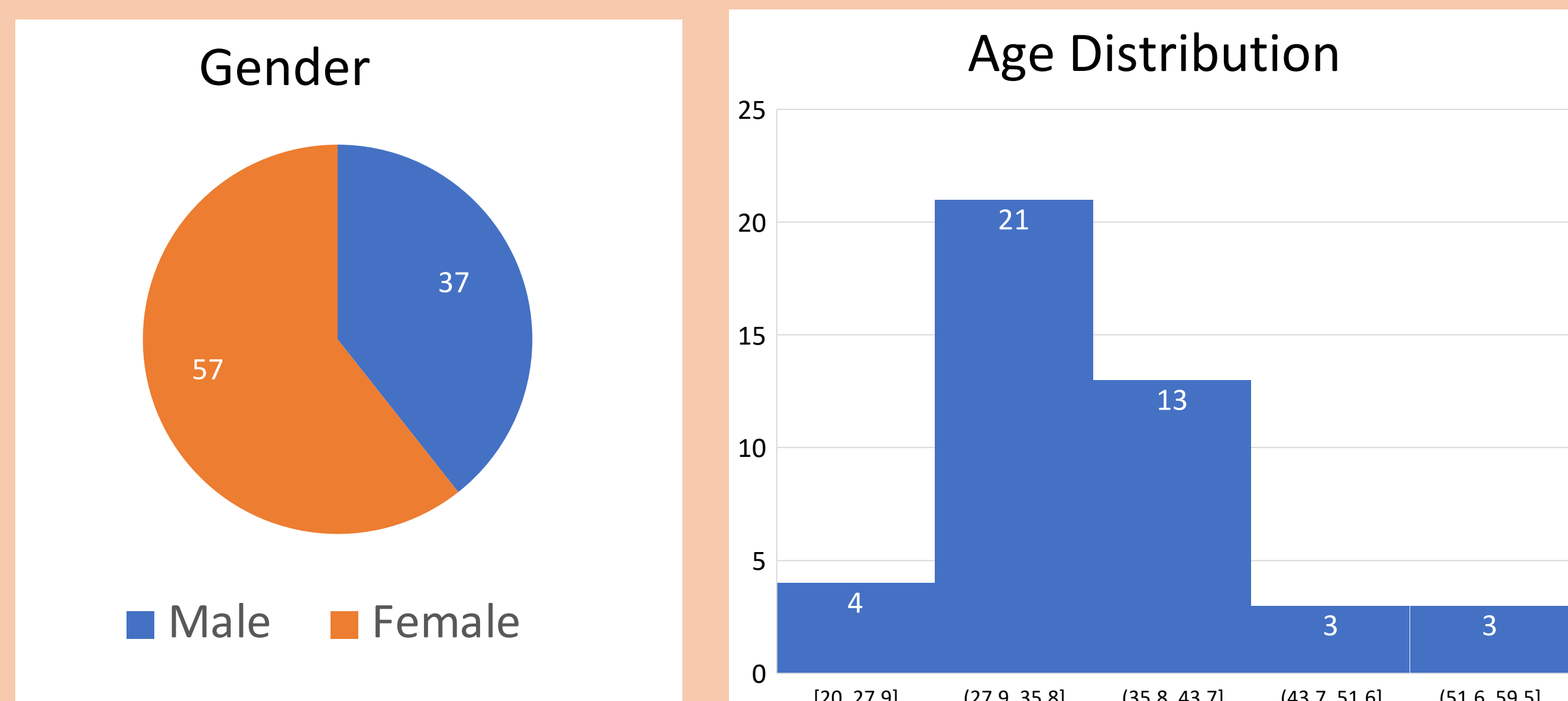


Fig 1: Gender of HCWs referred with LTBI. 61% male, 39% female.

Fig 2: Age distribution of HCWs referred with LTBI.

Results

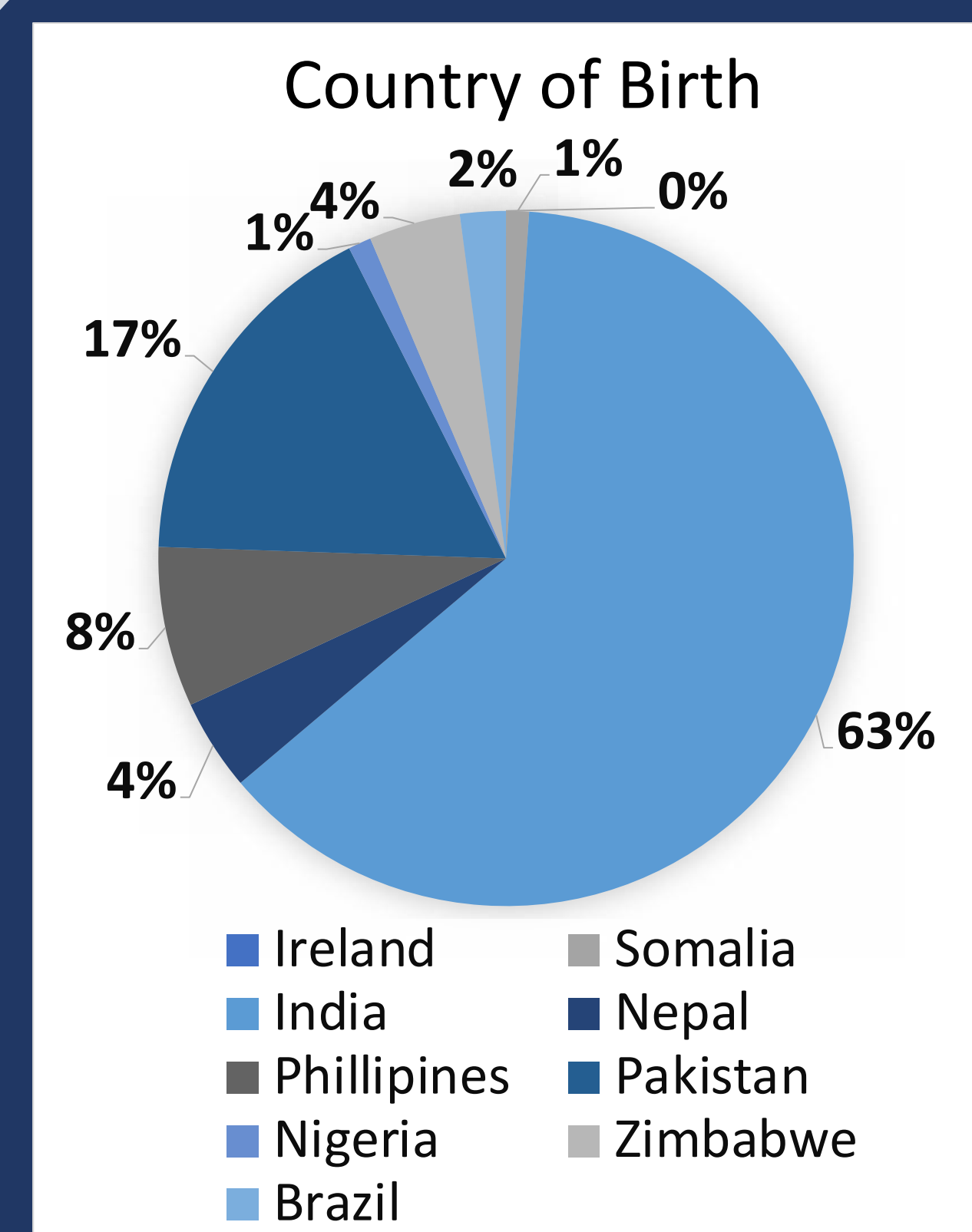


Fig 3: Country of birth of HCWs referred with LTBI. There was no statistically significant relationship between treatment completion and country of birth (P = 0.74)

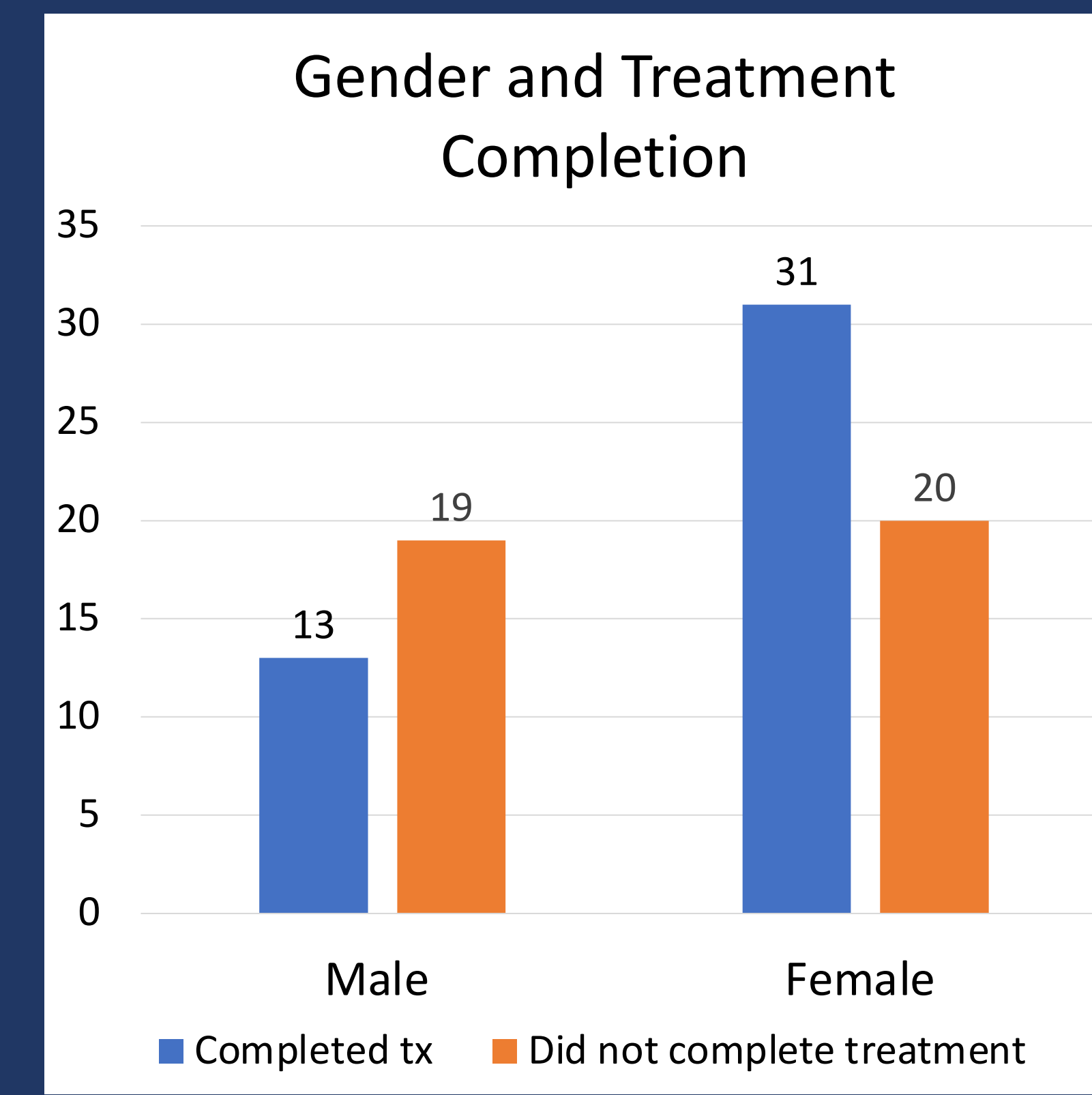


Fig 5: Gender and treatment completion rate. There was no statistically significant relationship between gender and treatment completion rates (P=0.074).

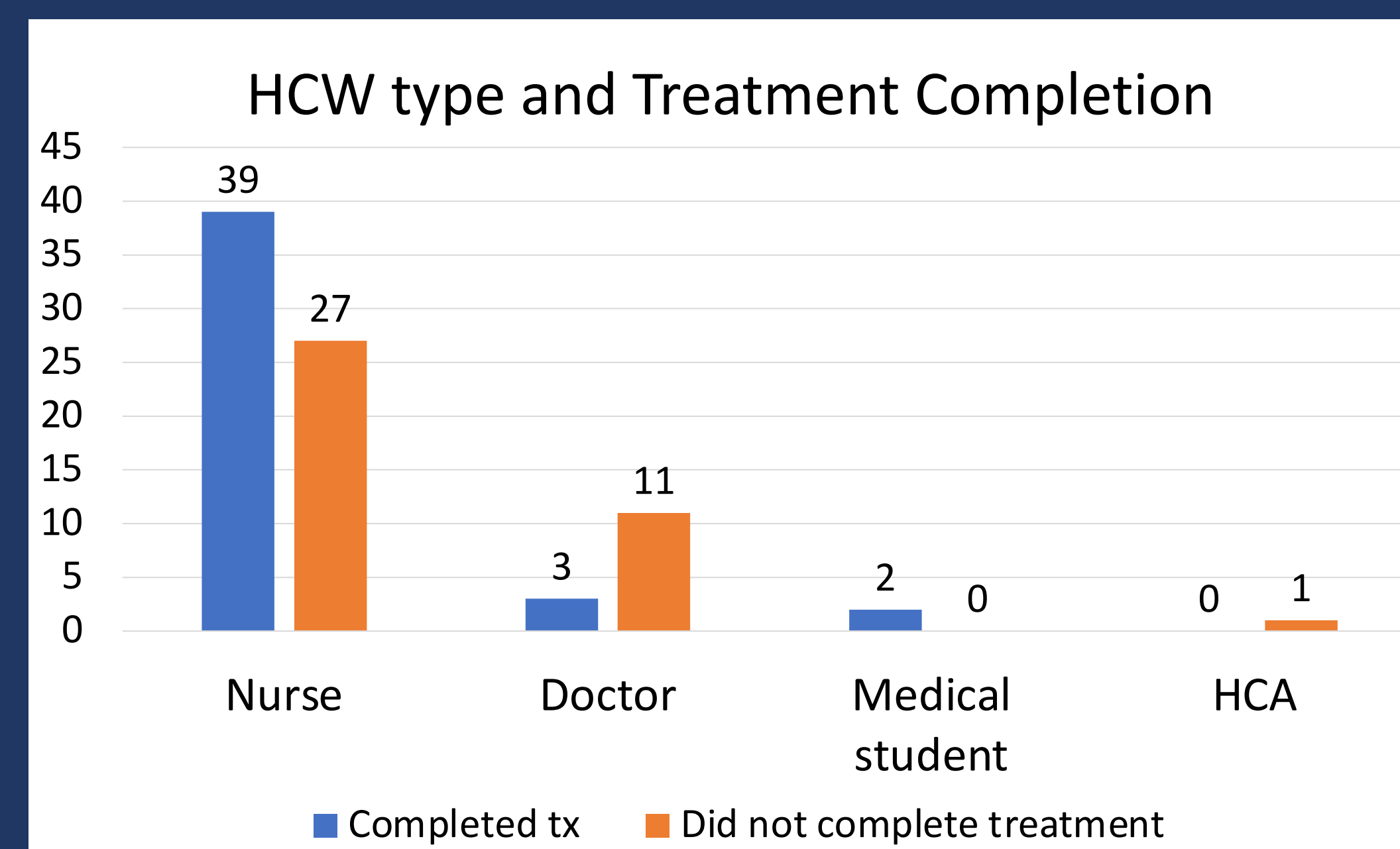


Fig 4: HCW type and treatment completion rate. Non-doctor HCWs (medical students, healthcare assistants and nurses) were more likely to complete treatment than doctors (P=0.008). Nurses were more likely to complete treatment than other HCWs (P= 0.01).

Of those HCWs referred to the TB clinic, 13/94 (14%) did not attend (DNA) an initial clinic appointment. 81/94 (86%) attended. Of these, 63/81 (78%) commenced treatment; 56/63 (88%) commenced Rifampicin and 7/63 (12%) Isoniazid monotherapy. 6/81 (7%) deferred treatment and 12/81 (15%) declined treatment outright. 6/63 (10%) DNA'd following treatment commencement. 44/63 (70%) have completed their treatment course and 8/63 (13%) remain on treatment. There was a statistically significant relationship between treatment completion and HCW type (P = 0.023). Non-medical staff were more likely to complete treatment than doctors (P = 0.008). Treatment completion rate was not associated with age (P = 0.272).

Conclusion

LTBI among HCW is increasing, likely reflecting increased screening and changing demographics of HCW in Ireland. This study highlights high rates of clinic non-attendance and low treatment completion rates in HCW with LTBI who were referred to a dedicated clinic. Doctors had significantly lower treatment completion rates in comparison to other HCWs. Interventions, including education, and reviewing our traditional approach to hospital-based outpatient clinics may be required to address this.

References:

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