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HepHIV 2026 2-3 NOVEMBER · DUBLIN

Four Years of STI Screening in a Portuguese University:

Prevalence, Trends and Public Health Implications

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OBJECTIVES

- Sexually transmitted infections (STIs) represent a **significant public health burden** for healthcare systems. The scarcity of available data on STIs prevalence hinds the development of effective public health strategies.
- Aligned with ECDC recommendations, which includes the scaling up of effective integrated testing, and considering that young adults represent a high-risk group, a **Portuguese University implemented a voluntary STI screening programme** accessible to all its students.
- Data collected over **the four years of the programme** allow the characterization of STI patterns within this vulnerable population and support the development of targeted prevention measures.

METHODS

- From October 2022 to May 2026, **1113 university students** attended the implemented STI screening program.

	Gender (F/M)		Age in years (Median)	Genitourinary samples
Portuguese University Population	**F**	656	18-30 (22)	651 vaginal swabs 15 anal swabs 419 urines 22 urethral swabs 6 oropharyngeal swabs
	M	457	18-30 (22)	
Total	1113		18-30 (22)	

- Whole blood sample was collected from each individual, and serum was used to screen the infection with HIV, Hepatitis viruses B and C, and *Treponema pallidum* according to national guidelines.
- Infection with *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, and *Mycoplasma genitalium* were screened in genitourinary samples by real time PCR.

RESULTS

- Sexually transmitted infections were diagnosed in **164 (14.7%)** of the evaluated university students (Figure 1). Infection with ***C. trachomatis* was the most frequent infection (8.9%)**, followed by *M. genitalium* (3.3%), *N. gonorrhoeae* (2.2%), and *T. pallidum* (1.1%) (Figure 1).
- A residual number of university students were infected with HIV (0.09%) and Hepatitis virus B (0.5%), and none of the screened students were infected with Hepatitis virus C (Figure 1).

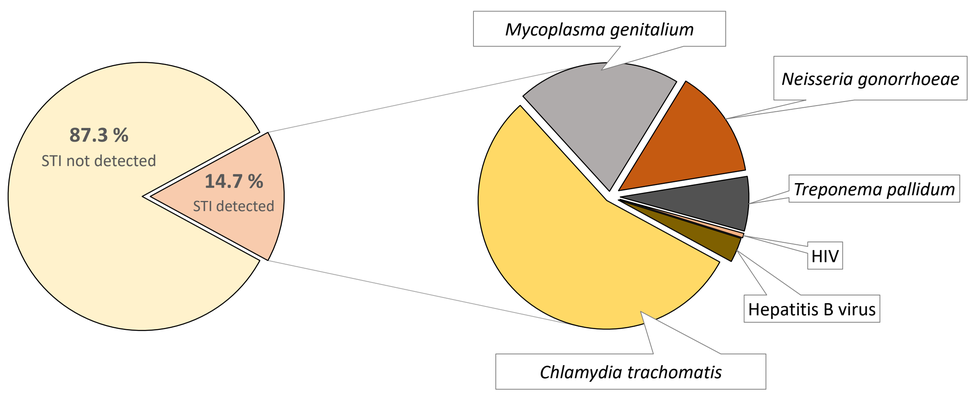

Figure 1: Detection of STI agents in university students.

- Throughout the study period, **an increase in STIs diagnoses was observed** (Figure 2).

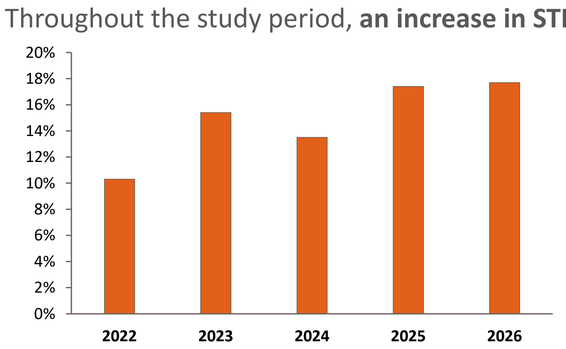

Figure 2: Frequency of STIs throughout the study period.

- **A significant increase in cases of gonorrhoea** was observed from October 2022 to May 2026 (p=0.0176) (Figure 3).
- The prevalence of the other STIs did not show a statistically significant variation throughout the study duration (Figures 4, 5 and 6).

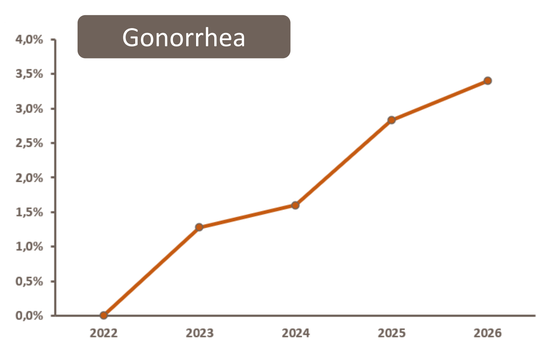

Figure 3: Detection of ***N. gonorrhoeae*** between 2022 and 2026 in university students.

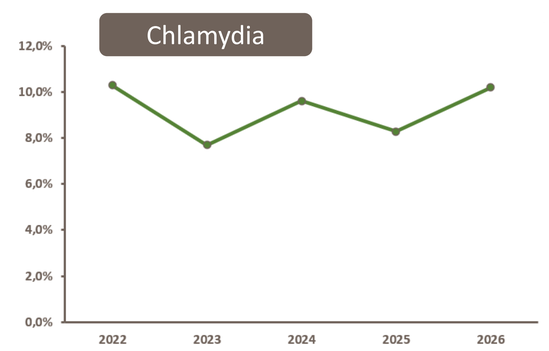

Figure 4: Detection of ***C. trachomatis*** between 2022 and 2026 in university students.

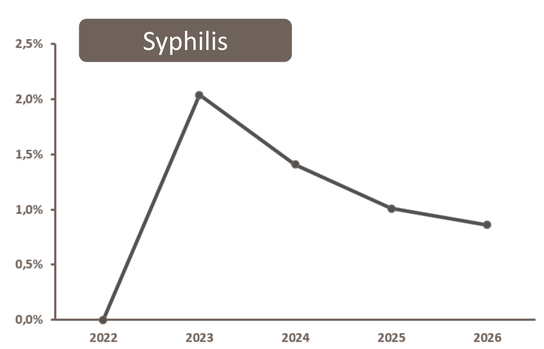

Figure 5: Detection of ***T. pallidum*** between 2022 and 2026 in university students.

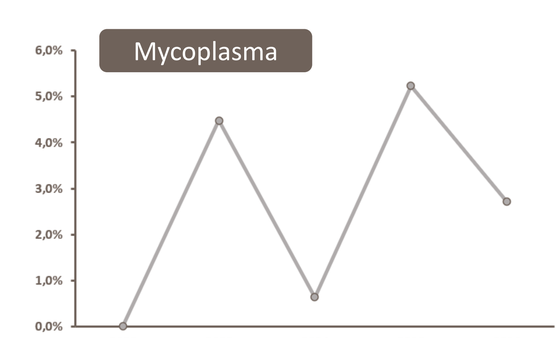

Figure 6: Detection of ***M. genitalium*** between 2022 and 2026 in university students.

CONCLUSIONS

- **Sexually transmitted infections are common among the studied university population**, and an increasing frequency is observed throughout the years.
- After diagnosis, **treatment was initiated to prevent complications and transmission.**
- **Testing of sexual partners** was recommended and performed when possible.
- The obtained results **yield crucial data for launching similar programs in other higher education institutions, promoting health awareness and prevention strategies.**

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Acknowledgments

- This study was supported by FCT - Fundação para a Ciência e a Tecnologia, Portugal, by PhD grant reference 2022.13408.BD (DOI https://doi.org/10.54499/2022.13408.BD), and by project references: https://doi.org/10.54499/UID/00102/2025 and https://doi.org/10.54499/UID/PRR/00102/2025..