

Overview and Characterization of Syphilis Cases in Vienna between 2018 and 2023

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Introduction: Syphilis is a systemic sexually transmitted infection (STI) caused by the spirochaete *Treponema pallidum* and can progress into different clinical stages. The aim of this evaluation was to investigate and characterize the number of patients diagnosed with syphilitic infection from January 2018 to June 2023.

Methods: Patients with suspicious syphilitic infection or after risky sexual contact were referred to the Outpatients Centre and evaluated regarding gender, symptoms, and probable previous contact with syphilis. Serology (VDRL, TPPA, IgM) and laboratory diagnostics were performed by darkfield microscopy of smear material of suspected chancres to detect *T. pallidum*.

Fig. 1: *T. Pallidum* visualized in dark field microscopy.
Source: Outpatience Centre Vienna



Fig. 2.: Percentage of positive patients (n= 8430)

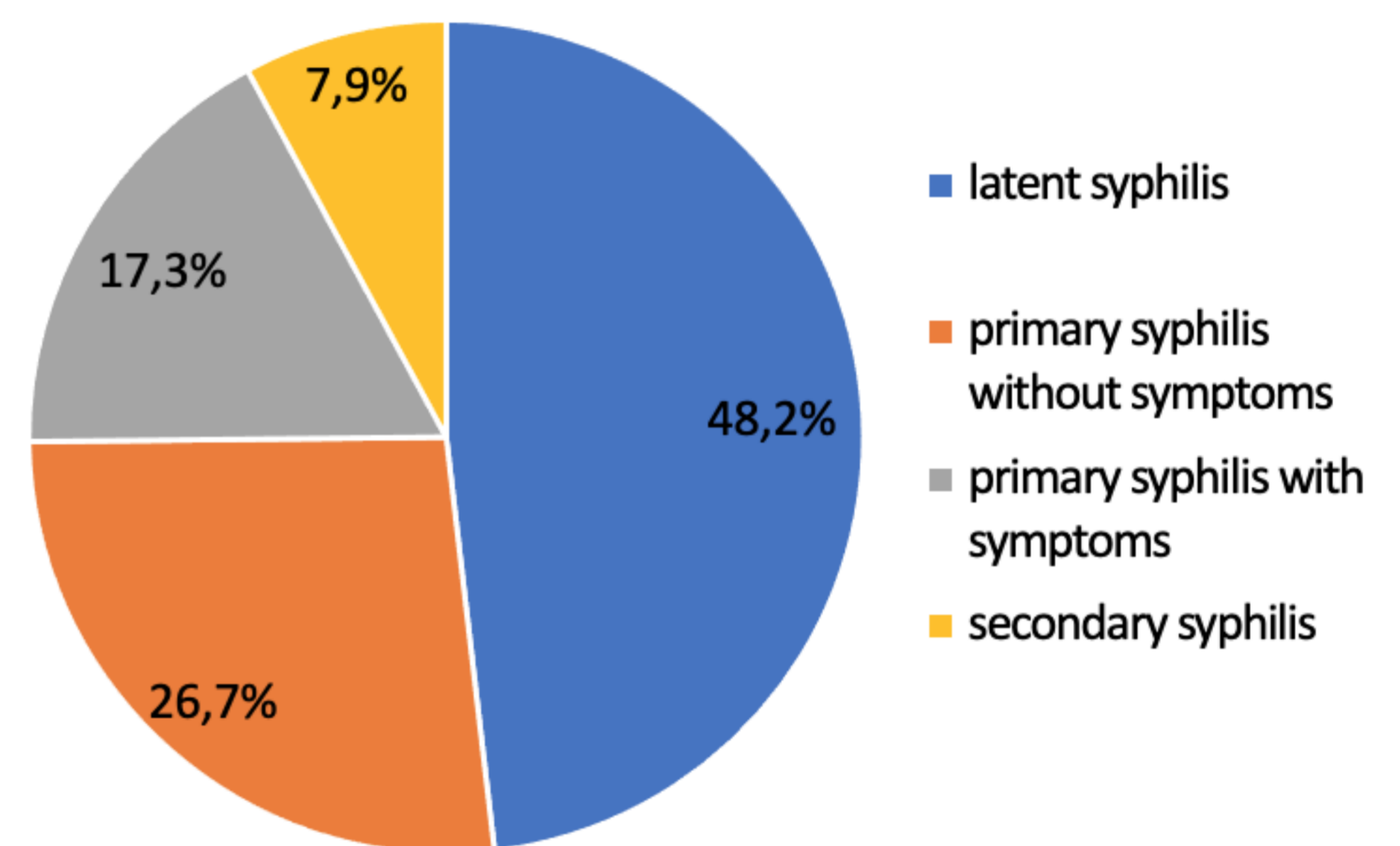
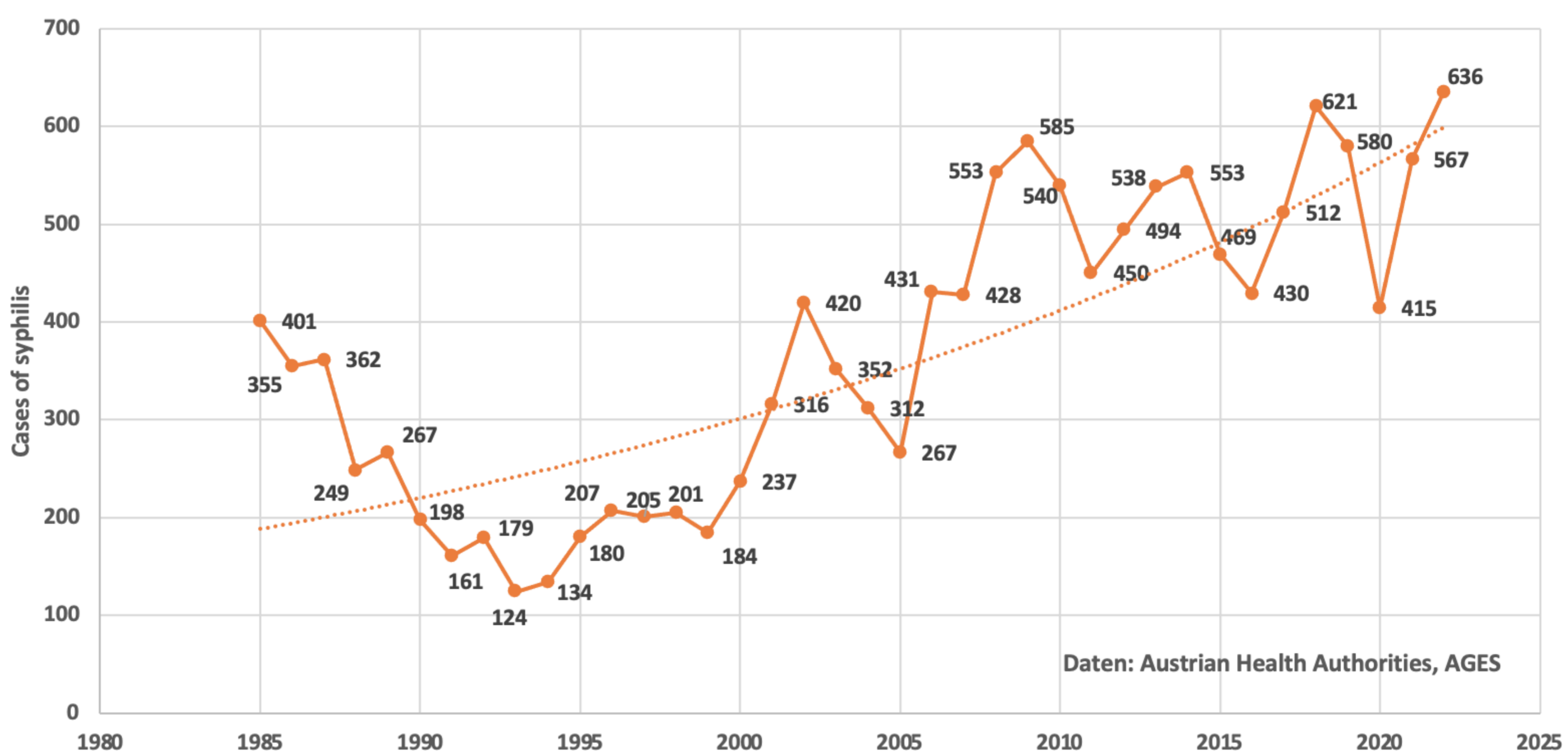


Fig. 3.: Number of reported syphilis cases in Austria from 1985 to 2022



Results: In total, 382 (4.6%) out of 8430 screened patients had a syphilitic infection. The majority of patients was male (94%, n=359). 48.2% (n= 184) of patients tested positive for the latent stage of the infection, 26.7% (n=102) were in the primary stage of syphilis with positive serology, but without symptoms. 17.3% (n=66) suffered from primary syphilis with symptoms, mainly painless ulcers. Secondary syphilis was diagnosed in 7.9% (n=30) of patients. During the Covid-19 pandemic a decrease of syphilis cases was observed, notably during the first lockdown in March 2020 only 7 patients had a syphilitic infection. The initial phase of the pandemic was followed by a rise of 42.6% (2020 vs. 2022) in syphilis cases.

Conclusion: Despite the availability of diagnostic methods and treatment options, syphilis remains a public health issue. The increase of cases, especially in male patients, highlights the importance of safe sex and regular STD screenings including syphilis.