

# WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

SJIF Impact Factor: 6.842

Research Article
ISSN 2455-3301
WJPMR

# THE PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS AMONG WOMEN WITH MULTIPLE PARTNERS IN MOROCCO

<sup>1\*</sup>Imane Hadi, <sup>2</sup>Iraqui Houssaini Zineb, <sup>3</sup>Wali Alami Mohamed, <sup>4</sup>Manar Yousra, <sup>5</sup>Benouda Amina

Cheikh Zayed International University Hospital, Rabat, Morocco.



\*Corresponding Author: Dr. Imane Hadi

Cheikh Zayed International University Hospital, Rabat, Morocco.

Article Received on 31/03/2024

Article Revised on 21/04/2024

Article Accepted on 12/05/2024

#### INTRODUCTION

Sexually transmitted infections (STIs) represent a major public health challenge worldwide, serving as a significant source of morbidity and mortality. The most commonly found infections are Chlamydia trachomatis (CT), Neisseria gonorrhoeae (NG), and Mycoplasma genitalium (MG). Women with multiple partners are a particularly vulnerable subpopulation to STIs, as their sexual behavior increases the risk of exposure to these infections. In Morocco, as in many other countries, STIs remain a pressing public health issue. However, the extent and specific prevalence of these infections among women with multiple partners remain largely unknown. This study aims to evaluate the epidemiological situation of CT, NG, and MG in this specific population, and ultimately, to guide public health policies aimed at preventing, screening, and treating these infections effectively.

### MATERIALS AND METHODS

This is a retrospective cross-sectional study conducted over a period of two years, from May 2021 to May 2023, at the International University Hospital Cheikh Zayed (HUICZ) in Morocco. The study included a total of 139 women with multiple partners who attended the HUICZ laboratory for screening tests for Chlamydia trachomatis (CT), Neisseria gonorrhoeae (NG), and Mycoplasma genitalium (MG) infections.

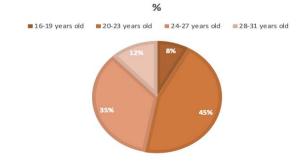
For the screening of NG and CT, all 139 women underwent testing using the GeneXpert and/or Multiplex methods.

Regarding MG screening, this was performed on 78 women using the Multiplex method.

## RESULTS

## - Demographic Data

The average age of the women in our sample was 23.5 years, ranging from 16 to 31 years.



## - Prevalence

Among the 139 patients included in the study, the prevalence rates of Chlamydia trachomatis and Neisseria gonorrhoeae infections were found to be 18.7% and 0.71%, respectively.

Regarding Mycoplasma genitalium screening conducted on 78 patients using the Multiplex method, two patients tested positive, representing a prevalence rate of 2.5%.

## DISCUSSION

STIs, such as gonorrhea, chlamydia, and genital mycoplasma, have serious consequences on reproductive health, quality of life, and overall health of individuals, leading to pelvic inflammatory diseases<sup>[3]</sup>, chronic pelvic pain, ectopic pregnancies, and infertility.<sup>[4]</sup> They also act as facilitators for HIV transmission.<sup>[5]</sup> Additionally, they impose a significant economic burden on national healthcare systems due to the high cost of medical care associated with their treatment.

The average age observed in our sample, namely 23.5 years, is noteworthy.

It is notable that this average is lower than that reported by other studies conducted in different contexts.

In the UK<sup>[6]</sup>, a study revealed an average age of 35 years among women with multiple partners, while in Burkina Faso<sup>[1]</sup>, another one documented an average age of 27 years.

www.wjpmr.com | Vol 10, Issue 6, 2024. | ISO 9001:2015 Certified Journal | 29

This divergence may stem from various factors, including cultural, socio-economic, and sexual behavior differences among the studied populations.

The age of the patients may play a pivotal role in the transmission of sexually transmitted infections (STIs). Young women may exhibit heightened susceptibility to specific STIs due to cervical ectopy following sexual initiation<sup>[7,8]</sup> or a reduced likelihood of having developed protective immunity following prior exposure to STIs.<sup>[9]</sup>

Data on the prevalence of STIs among women with multiple partners remain scarce in Morocco. The prevalence rates of CT, NG, and MG infections in our study population provide important insights into the epidemiological situation of STIs in Morocco.

In this study, the highest prevalence among the studied STIs was for Chlamydia trachomatis with a rate of 18.7%. This figure is close to that documented in a study conducted in China, where the prevalence was 17.30%.

However, it should be noted that the CT prevalence in our study significantly exceeds that observed in other regions of the world, notably in Switzerland<sup>[10]</sup> (6%), the UK<sup>[6]</sup> (4.9%), and Burkina Faso<sup>[1]</sup> (11.5%). These variations in prevalence highlight significant disparities in the spread of CT among different populations, underscoring the importance of awareness strategies, sexual health education, and targeted screening campaigns.

Regarding NG, the prevalence within our study population stands at 0.71%, a rate lower than that reported in the literature, notably in China<sup>[11]</sup> (5.91%), Burkina Faso<sup>[1]</sup> (13.74%), and the UK<sup>[6]</sup> (1.2%).

MG infection was detected in two out of 78 tested women, establishing a prevalence proportion of 2.56%. This rate remains lower than that found in other regions, such as the UK<sup>5</sup> (4.9%) and Burkina Faso<sup>[1]</sup> (11.53%).

	CT	NG
Our Study	18,7%	0,71%
Switzerland <sup>[10]</sup>	6%	0%
United Kingdom <sup>[5]</sup>	4,9%	1,2%
China <sup>[11]</sup>	17,30%	5,91%
Burkina Faso <sup>[1]</sup>	11,53%	13,74%

#### **CONCLUSION**

Obtaining data on the prevalence of sexually transmitted infections (STIs) among women with multiple partners in Morocco remains challenging due to the scarcity of studies on this subject. However, the results of this study shed light on the epidemiological situation of STIs within this specific population.

The findings of our study highlight the urgent need to develop prevention and control strategies tailored to each region, considering unique epidemiological

characteristics. Increased awareness, sexual health education, and targeted screening campaigns remain essential to reduce the prevalence of these infections and improve the sexual and reproductive health of women in Morocco.

### REFERENCES

- Tovo, S.F.; Zohoncon, T.M.; Dabiré, A.M.; Ilboudo, R.; Tiemtoré, R.Y.; Obiri-Yeboah, D.; Yonli, A.T.; Dovo, E.E.; Ouédraogo, R.A.; Ouattara, A.K.; et al. Molecular Epidemiology of Human Papillomaviruses, Neisseria gonorrhoeae, Chlamydia trachomatis and Mycoplasma genitalium among Female Sex Workers in Burkina Faso: Prevalence, Coinfections and Drug Resistance Genes. Trop. Med. Infect. Dis., 2021; 6: 90.
- 2. Li Y, Detels R, Lin P, et al: Difference in risk behaviors and STD prevalence between street-based and establishment-based FSWs in Guangdong Province, China. AIDS Behav, 2012; 16: 943–951.
- 3. Kamwendo F, Forslin L, Bodin L, Danielsson D: Decreasing incidences of gonorrhea- and chlamydia-associated acute pelvic inflammatory disease. A 25-year study from an urban area of central Sweden. Sex Transm Dis., 1996; 23: 384–391.
- 4. R P Mak, L Van Renterghem, A Traen Chlamydia trachomatis in female sex workers in Belgium: 1998–2003 Sex Transm Infect, 2005; 81: 89–90.
- 5. Fleming DT, Wasserheit JN: From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Infect, 1999; 75: 3–1.
- 6. Llangari-Arizo LM, Sadiq ST, Marqüez C,Cooper P, Furegato M, Zhou L, et al. Sexually transmitted infections and factors associated with risky sexual practices among female sex workers: A cross sectional study in a large Andean city. PLOS ONE, 2921; 16(5): e0250117.
- 7. Pettifor AE, Turner AN, van Damme K, et al: Increased risk of chlamydial and gonococcal infection in adolescent sex workers in Madagascar. Sex Transm Dis., 2007; 34: 475–478.
- 8. Rekart ML, Brunham RC: Epidemiology of chlamydial infection: are we losing ground? Sex Transm Infect, 2008; 84: 87–91.
- Batteiger BE, Xu F, Johnson RE, Rekart ML: Protective immunity to Chlamydia trachomatis genital infection: evidence from human studies. J Infect Dis., 2010; 201(2): S178–S189.
- 10. Vu Francis<sup>a</sup>, Cavassini Matthias<sup>b</sup>, D'Acremont Valérie<sup>a</sup>, Greub Gilbert<sup>c</sup>, Jaton Katia<sup>c</sup>, Masserey Eric<sup>d</sup>, Pongelli Silvia<sup>e</sup>, Bouche Laurence<sup>a</sup>, Ngarambe Chantal<sup>a</sup>, Bize Raphaël<sup>f</sup>, Bodenmann Patrick<sup>a</sup> Epidemiology of sexually transmitted infections among female sex workers in Switzerland: a local, exploratory, cross-sectional study Swiss Med Wkly, 2020; 150: w20357.

11. Chen et al.: The prevalences of Neisseria gonorrhoeae and Chlamydia trachomatis infections among female sex workers in China. BMC Public Health, 2013; 13: 121.