

# Increase in *Neisseria gonorrhoeae* isolation from urogenital tract clinical specimens and resistance to Quinolones at the "Institut national d'hygiène", Lome, Togo, 2010-2022

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## Background

- Achieving the objectives of reducing new HIV infections requires a reduction and effective management of sexually transmitted infections.
- During laboratory's routine diagnostic activities, we observed an abnormal frequency in isolation of *Neisseria gonorrhoeae* with decreases in antibiotic susceptibility.

## Objective

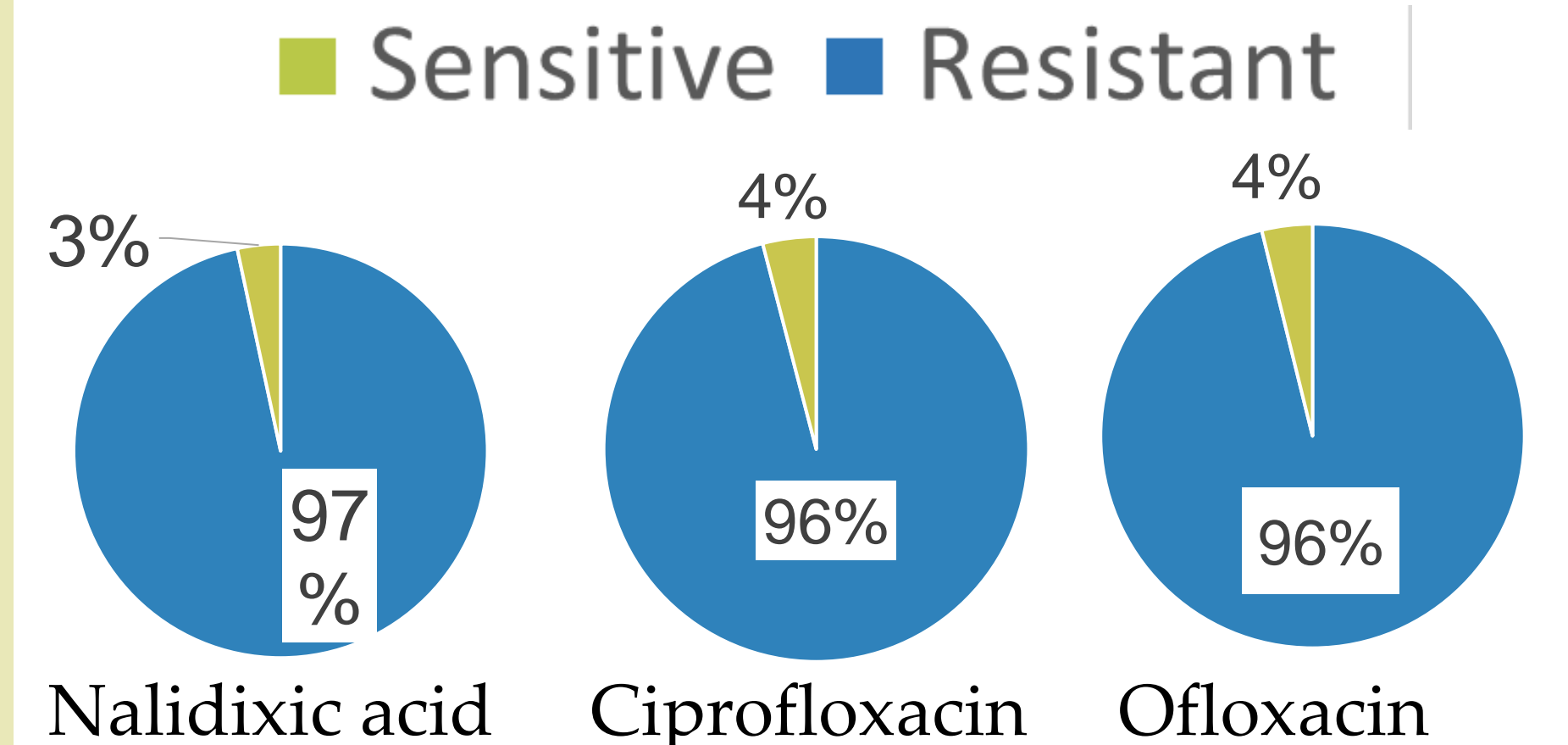
We aim to describe the trend of *Neisseria gonorrhoeae* (Ng) isolations from clinical specimens and their resistance profile to Quinolones at the INH from 2010 to 2022.

## Methods

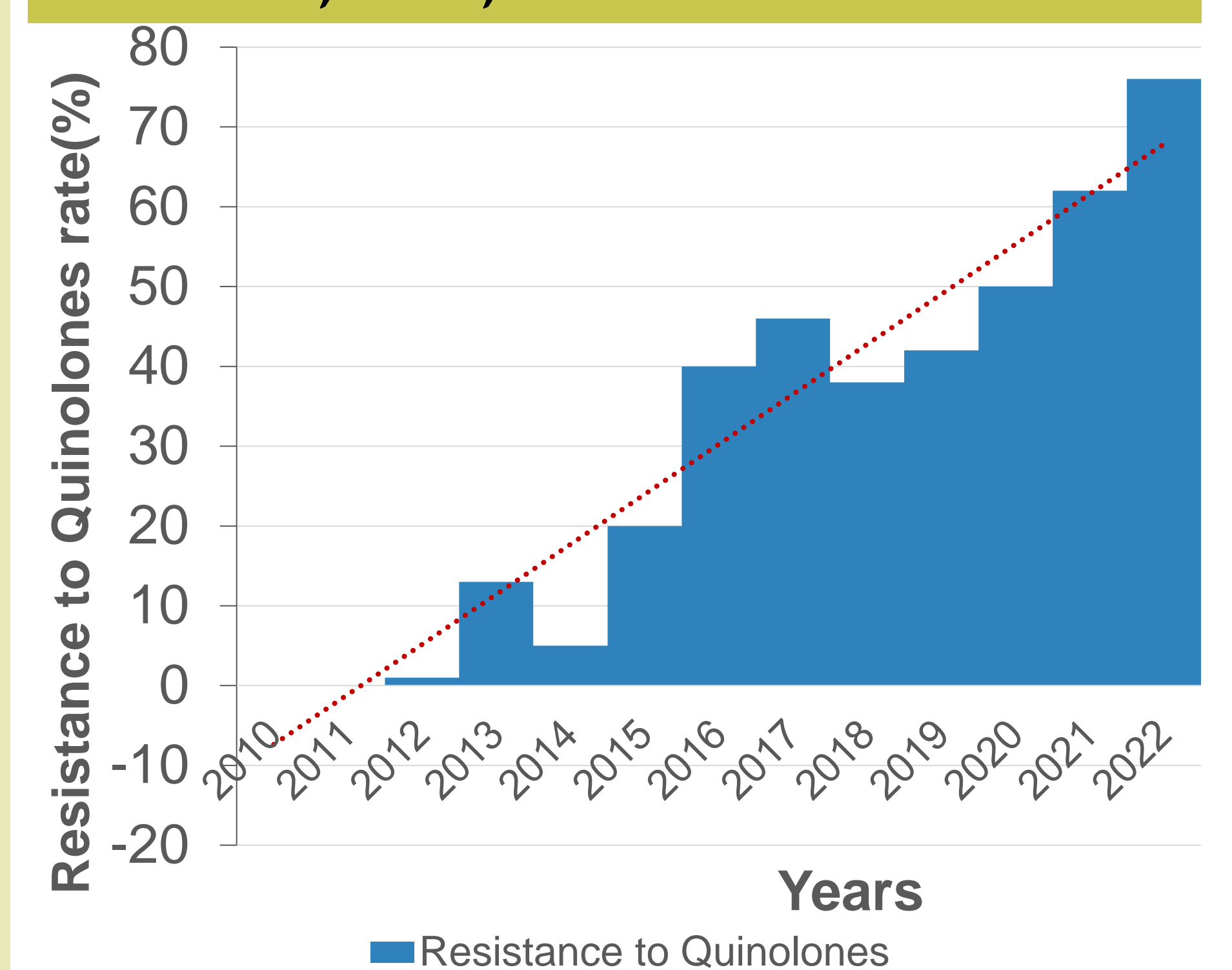
- We analyzed bacteriological examinations and AST reports of urogenital samples at the laboratory.
- Antibiotic susceptibility testing was performed by the diffusion in agar medium method using EUCAST standards.
- Annual prevalences calculated, compared and tested using linear trend Chi-square ( $\alpha=0.05$ ).

Note : AST= Antibiotic Susceptibility Testing  
EUCAST = European Committee on Antimicrobial Susceptibility Testing

## Results

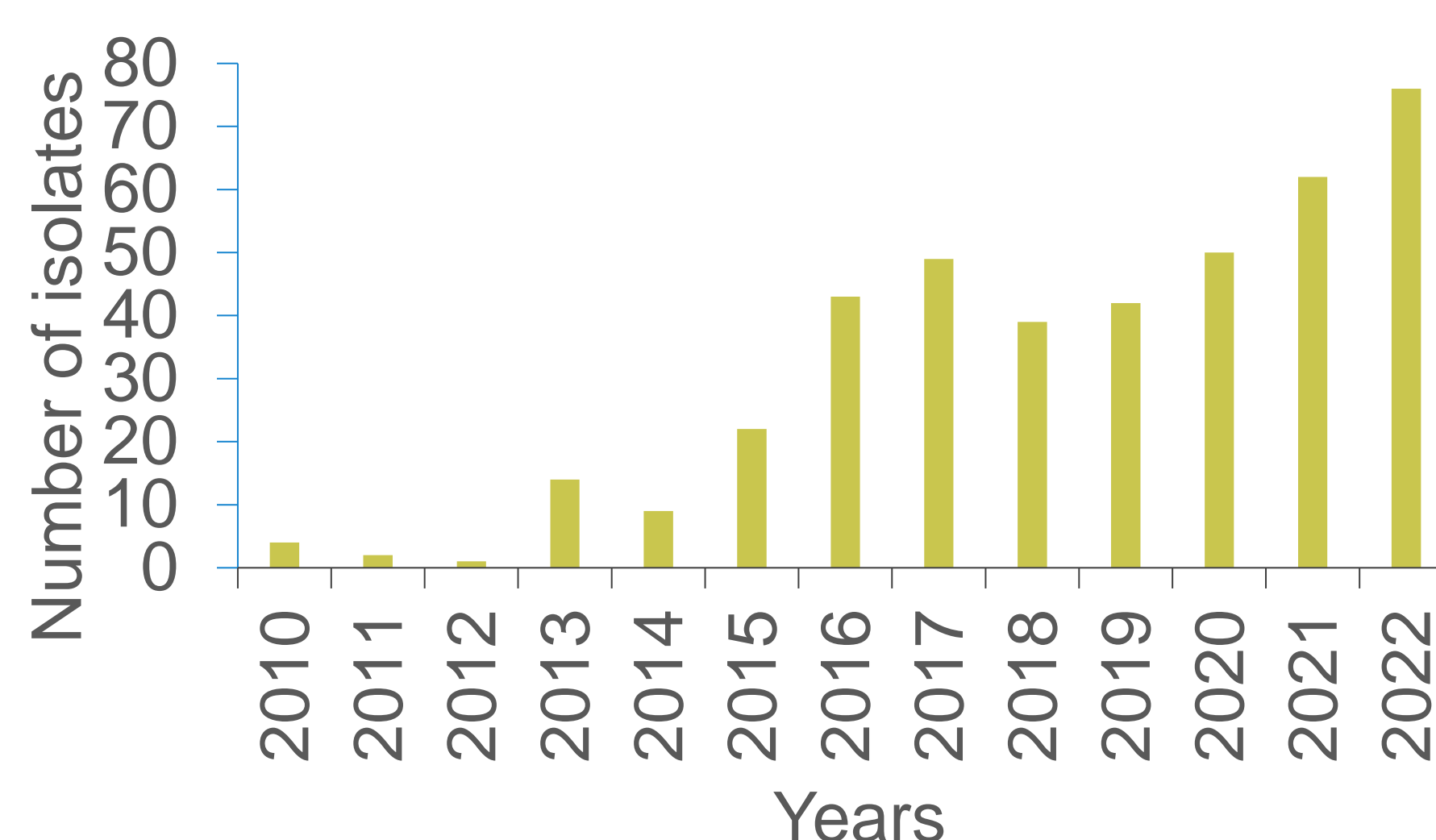


**Figure2: Overall resistance rate of *Neisseria gonorrhoeae* (Ng) strains by antibiotic, INH, 2010-2022**



**Figure3: *Neisseria gonorrhoeae* resistance to quinolones by year, INH, 2010-2022**

## Results



**Figure1: Distribution of *Neisseria gonorrhoeae* cases by year, INH, 2010-22**

During the 13 years, we noted a significant increase in the resistance rates of *Neisseria gonorrhoeae* to quinolones range from 0% to 100% ( $p=0.000$ ).

## Conclusion

We noted a significant increase in Ng isolations and total resistant to quinolones. Is it an epidemic of Ng sexual infections which could be linked to risky behaviors ?

This can compromise efforts to achieve Sustainable Development Objectives in fighting against HIV/AIDS/STIs.

## Recommendations

Establish a comprehensive antibiotics susceptibility profile (phenotypes and genomics) of Ng in order to update Sexual Transmitted Infections management protocols.

## References

Référentiel en microbiologie Médicale, REMIC (2010 and 2015)  
EUCAST : European Committee on Antimicrobial Susceptibility Testing

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Together our impact is greater