Supervision of Sexually Transmitted Infections in Senegal: A national survey conducted in 2006 and 2010 respectively 596 and 570 Female Sex Worker in different STIs centres of Senegal.

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AFRICAN SOCIETY FOR LABORATORY MEDICINE

Innovation and Integration of Laboratory and Clinical Systems

Reshaping the Future of HIV, TB, Malaria, Flu, Neglected Tropical Diseases and Emerging Pathogens in Africa

Background

The general population in Senegal has remained relatively free of HIV with a low prevalence (0.7%)

Senegal = country with concentrated epidemic => need to identify, understand and act on the most vulnerable groups.

A combined survey combines serological status with behavior
- Identify vulnerability factors
- Identify risk situations
- Track changes in the prevalence and behavior
- Better align strategic response.

Methods(1)

- ✓ We did a behavior survey combined with a biological investigation in different target groups (Military, Cops, Fishermen, Truckers, **FSW**)

- ✓ Vaginal specimen collection was done by the FSW herself and blood was collected at the elbow

Methods (2)

- ✓Vaginal secretion were used for the diagnosis of vaginal candidasis, Trichomonas vaginalis vaginitis and bacterial vaginosis;

- ✓Blood was analyzed for diagnosis of syphilis and HIV infection

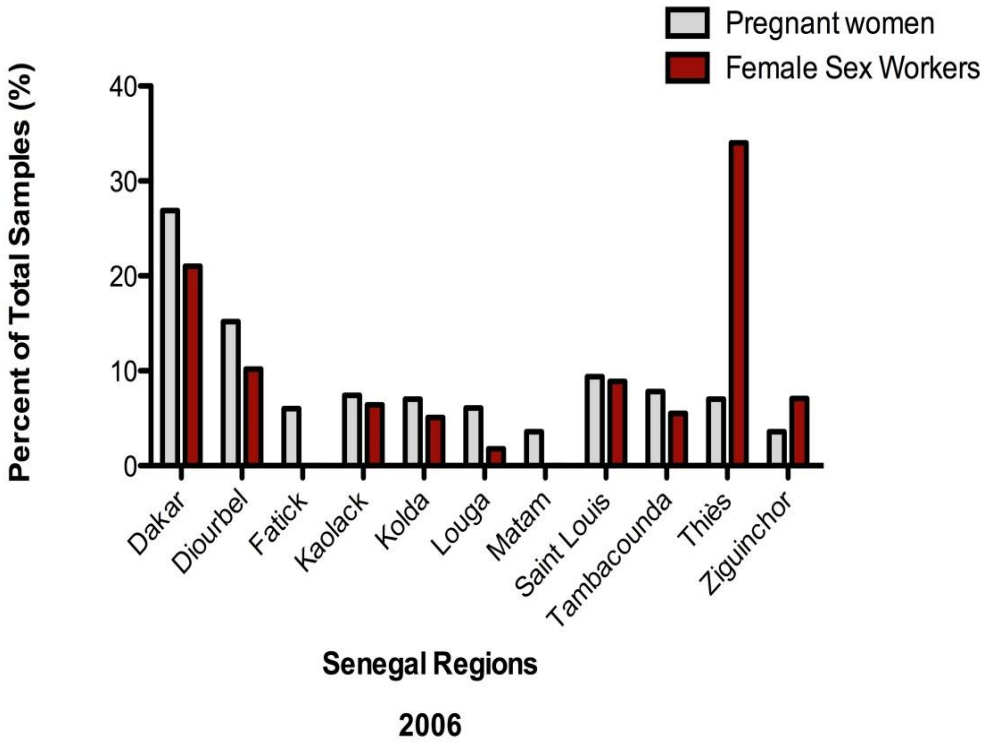
Results

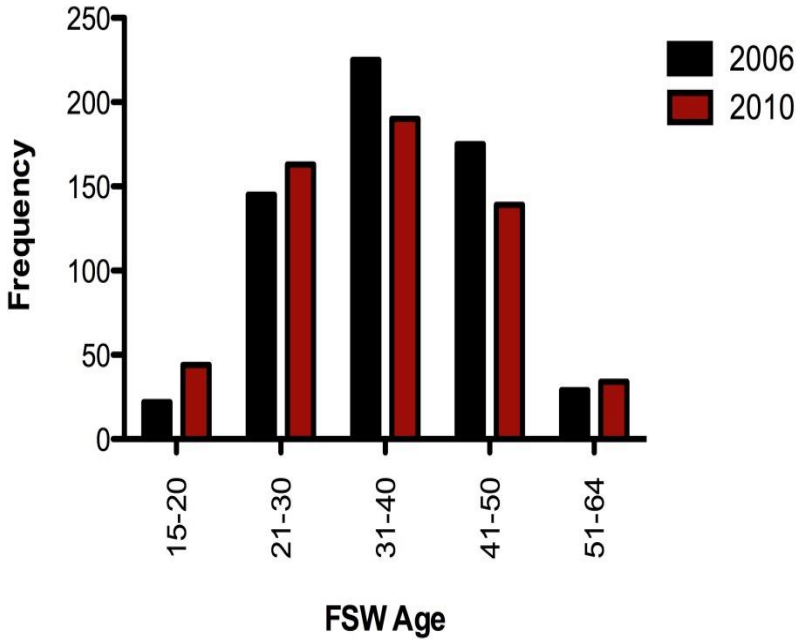
- Data was collected from sentinel sites in 11 regions of Senegal

- On a total of 1166 women,
  - 596 were tested in 2006 & 570 in 2010.

- All Female Sex Workers were registered within a national medical centres or working as a clandestine

Study Population Characteristics

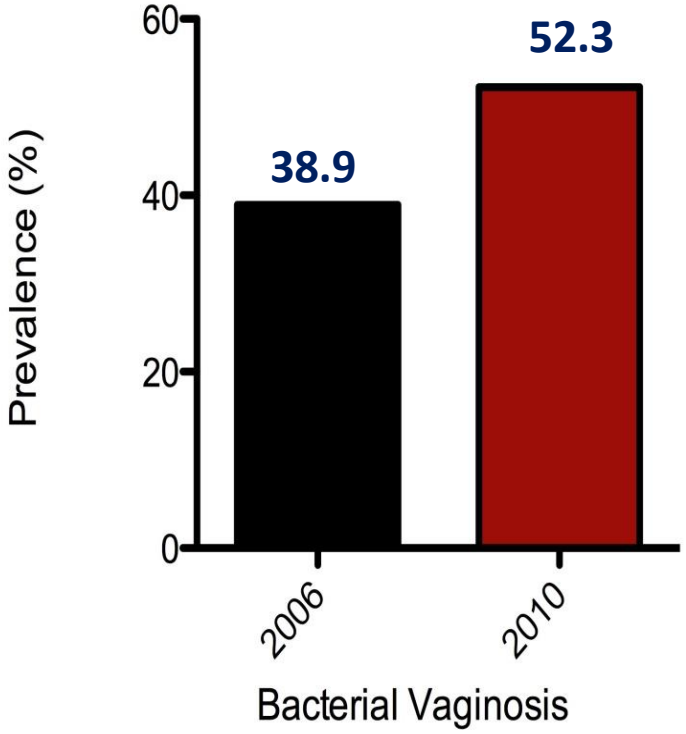


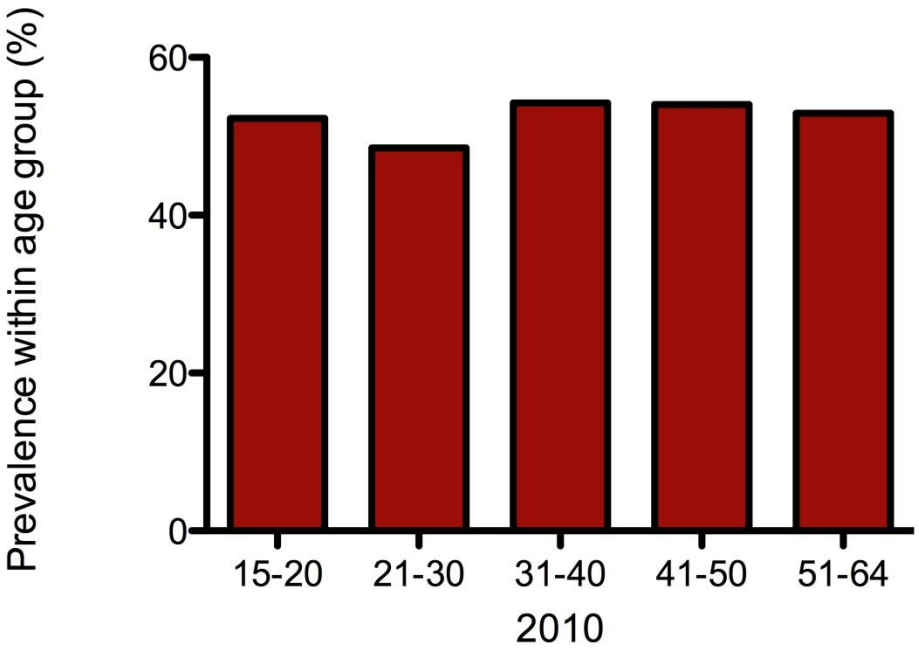


- Both female sex workers and pregnant women were included in the analysis

- The age ranged varied from 15 to 62 years with an average of 35.09
  years in 2006 and 36.59 years in 2010

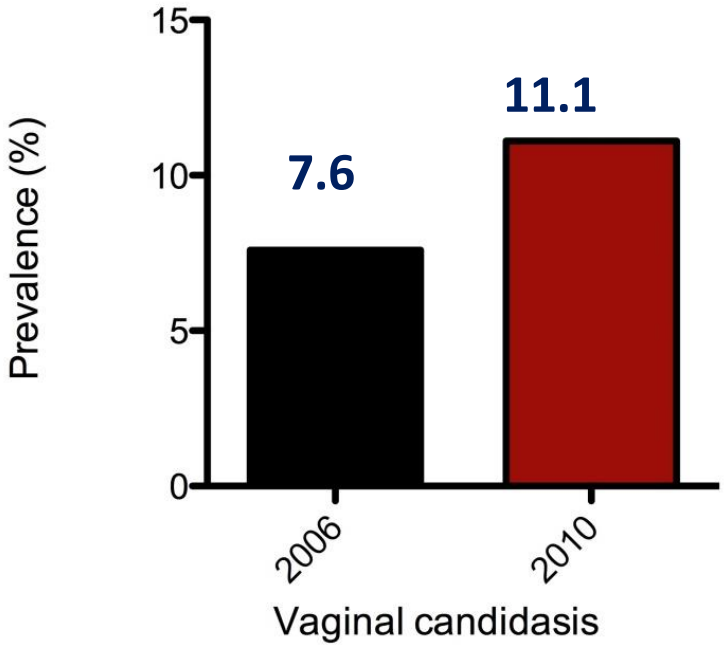
Prevalence of bacterial vaginosis

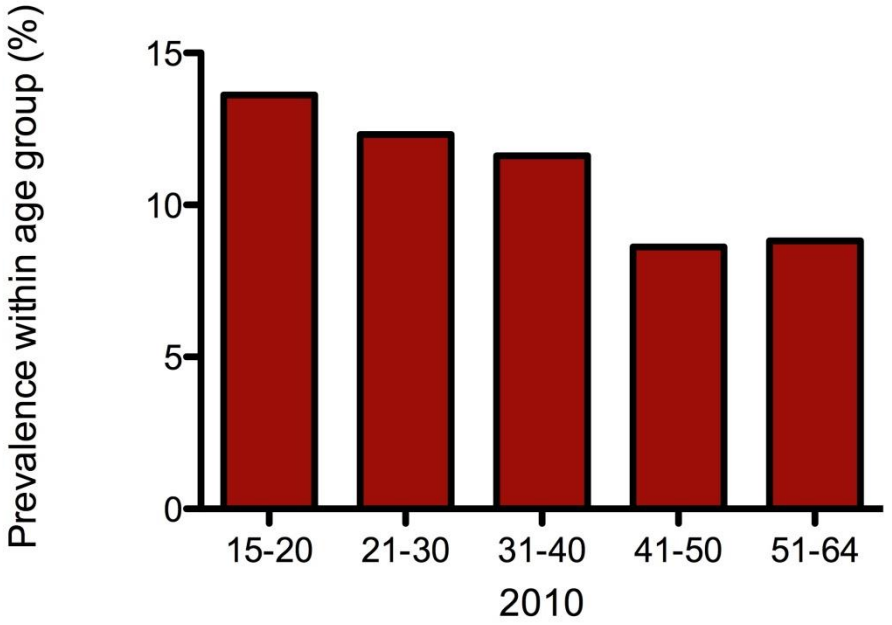




A slight, but non-significant increase in bacterial vaginosis is observed from 2006 to 2010, and the disease is equivalently distributed across age groups

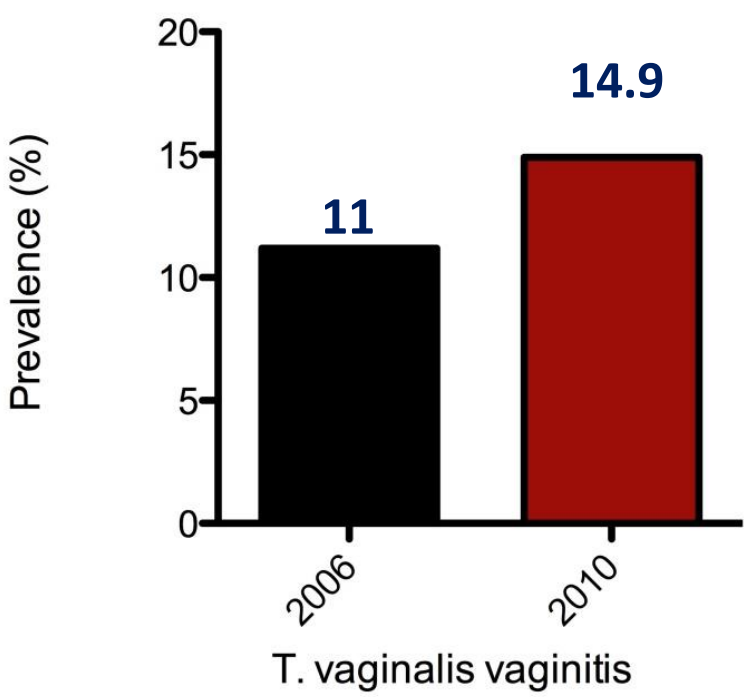
Prevalence of vaginal candidasis

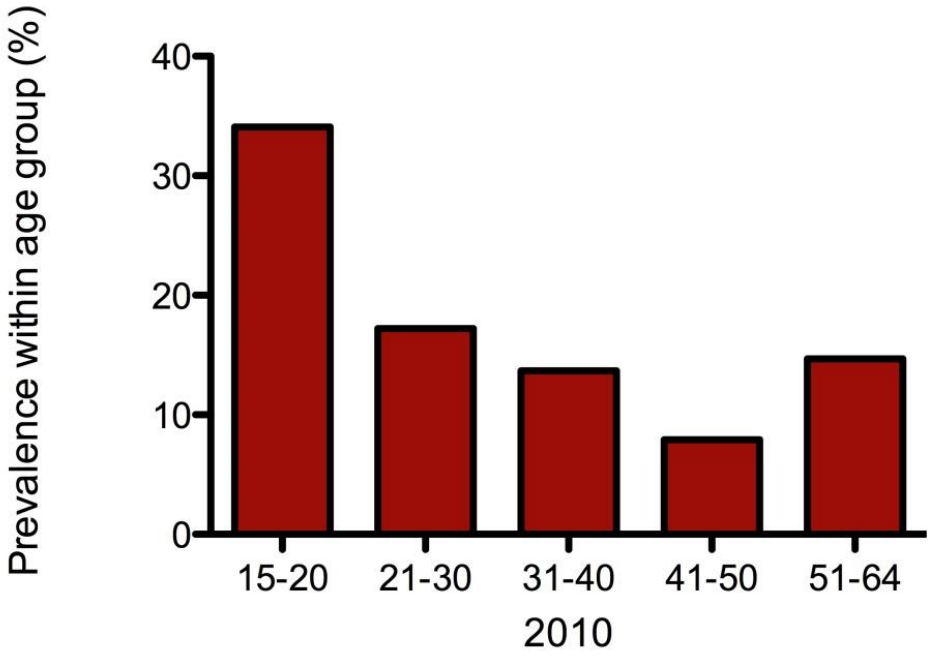




A slight, but non-significant increase in vaginal candidasis is observed from 2006 to 2010, and the disease is equivalently distributed across age groups

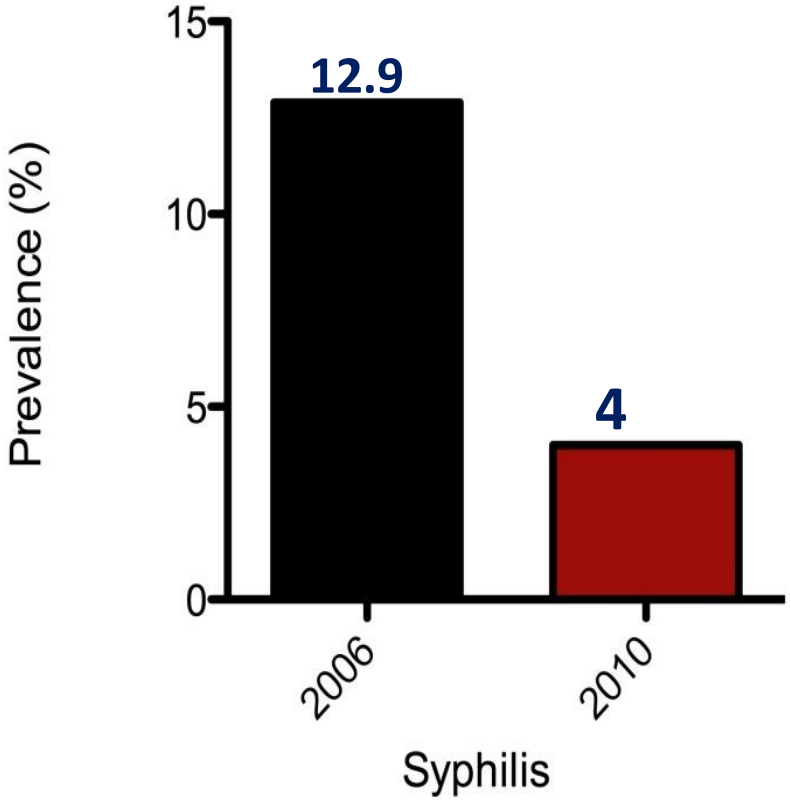
Prevalence of *Trichomonas vaginalis* vaginitis

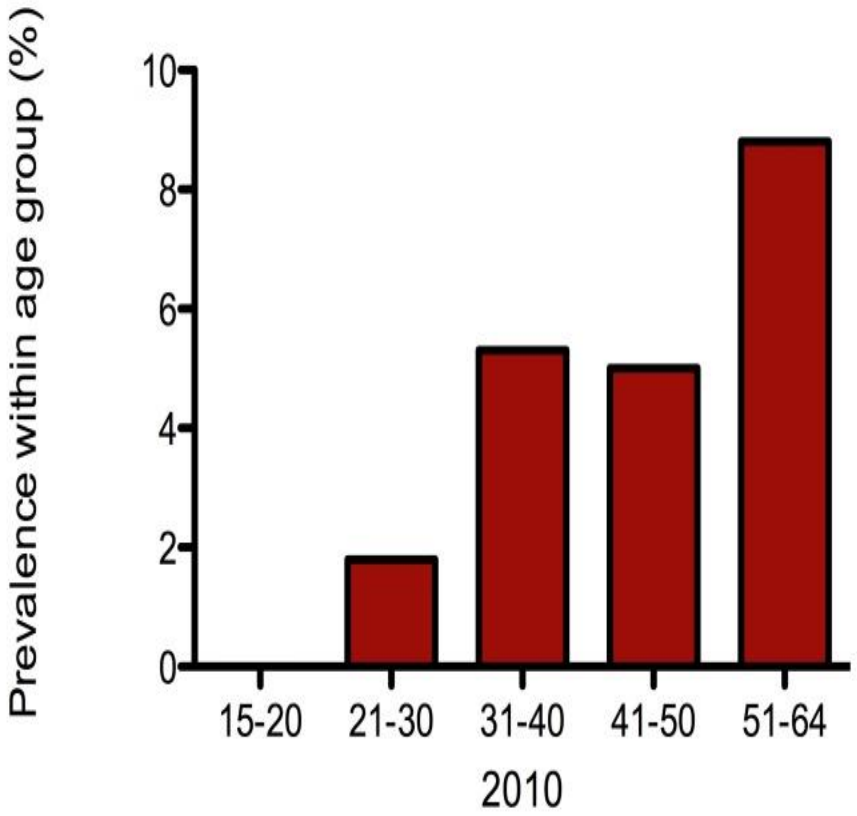




A slight increase (non-significant) in *T. vaginalis* infection is observed from 2006 to 2010

Prevalence of syphilis

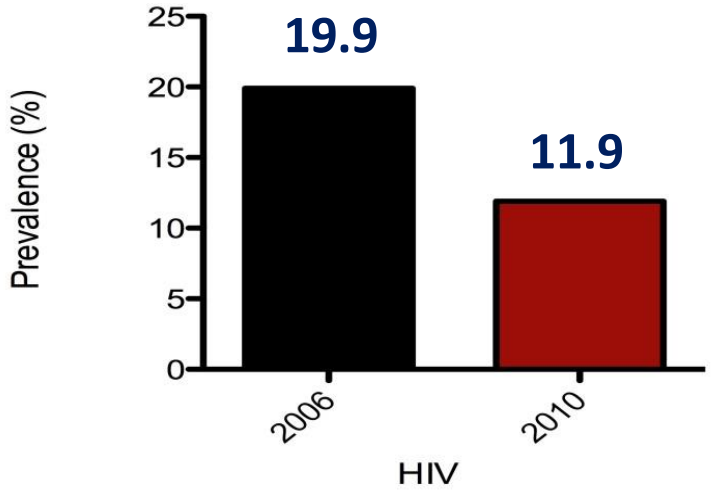


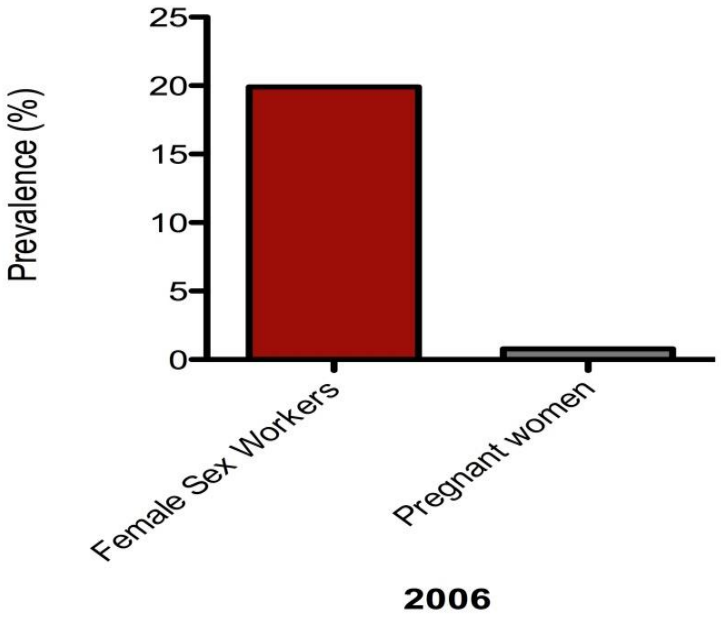


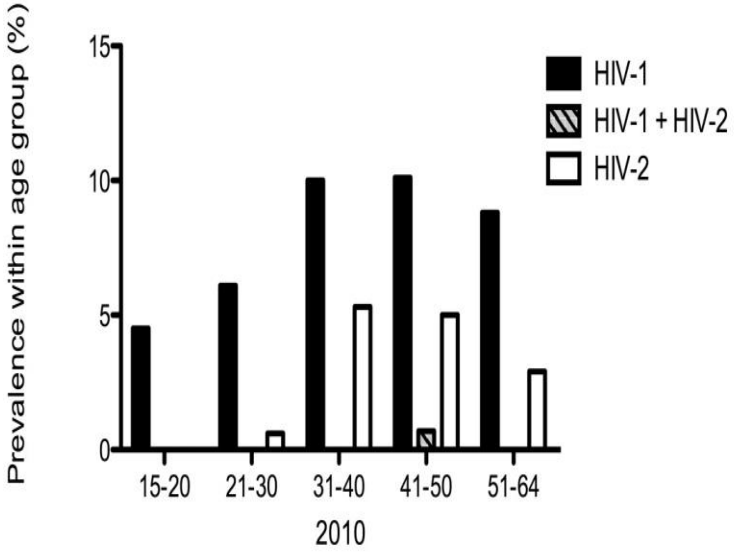
Syphilis declines from 2006 to 2010, albeit non-significantly,

and the disease is more prevalent in older women

Prevalence of HIV







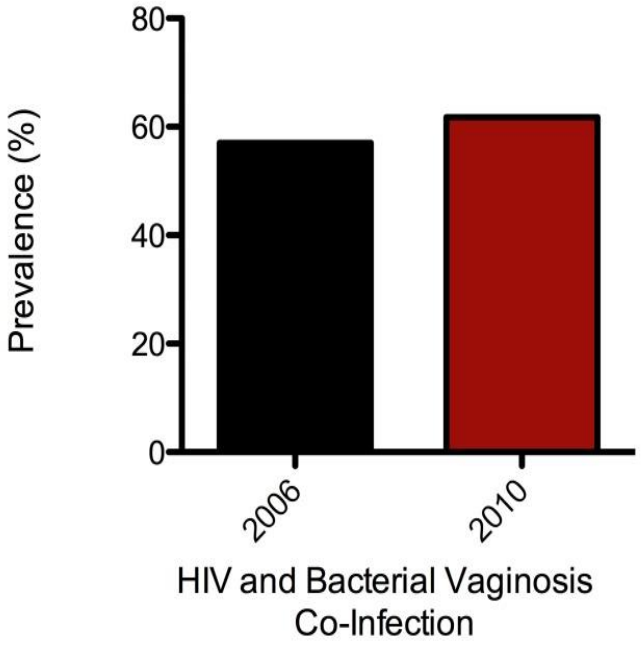
•HIV declines from 2006 to 2010, however the decline is not significant.

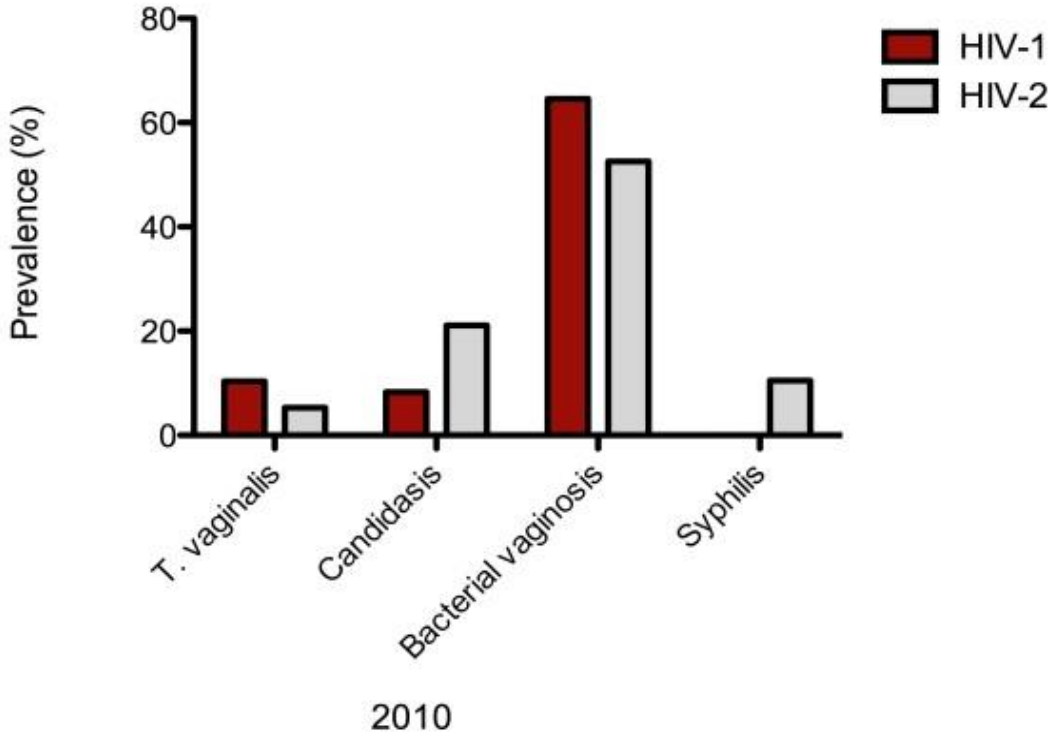
• HIV infection remains concentrated in FSW
• In 2010, the HIV-1 prevalence (8.4%) is higher than HIV-2 prevalence (3.3%)

• The prevalence of HIV-2 is higher among older women whereas the prevalence of HIV-1 is distributed evenly across age groups

• Very few HIV-1 and HIV-2 Co-infections are observed.

HIV and STI Co-infections

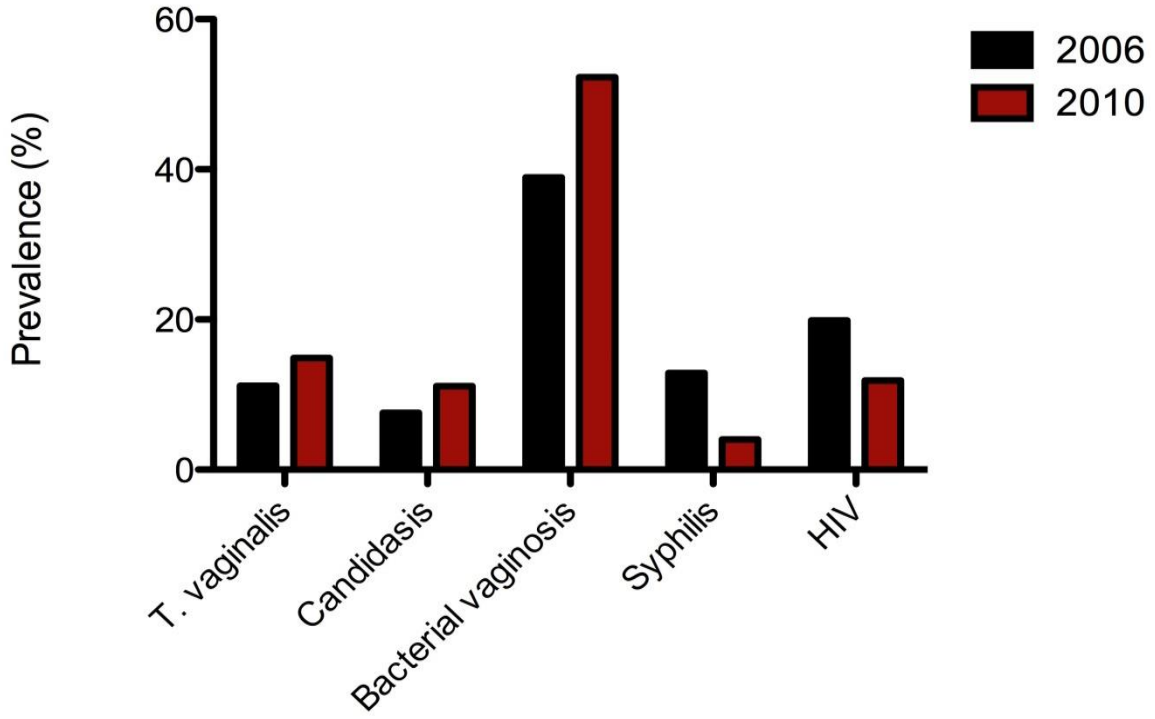




- Co-infection with HIV and Bacterial vaginosis was observed at similar prevalences in both 2006 and 2010.

- Co-infection of STIs with HIV-1 and HIV-2 are also shown.
- No co-infection between syphilis and HIV-1 was observed in this population.

STIs stratified into groups



- A summary of all STI data is shown for 2006 and 2010.

- Of all STIs in this population, Bacterial vaginosis was most highly prevalent.
- Non-significant increases in prevalence were observed for *T. vaginalis*, Candidasis, and Bacterial vaginosis , whereas non-significant decreases in prevalence were observed for Syphilis and HIV.

Conclusion

- ✓ This work shows the stability of HIV infection in Senegal, concentrated among FSW, but also it suggests some future orientations in care, support, prevention and research on STIs. It shows that the microbiological part of the national survey and monitoring of STIs must be conducted in a sentinel manner.

- ✓ Further analyses comparing the behavioral data with the biological data may associate prevalence changes with behaviors which can be addressed by public health measures.

- ✓ Research of this nature may influence public health policy through future recommendations in care, support, prevention and research on STIs.

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Thank you for your attention