Santé publique France

SOCIO-ECONOMIC INEQUALITIES IN THE PREVALENCE AND INCIDENCE OF PHARMACOLOGICALLY-TREATED DIABETES IN FRANCE IN 2020

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Presenter: **Emmanuel Cosson**

19 September 2022

BACKGROUND AND AIMS

FINDINGS:

- ✓ **Important impact of social inequalities in health, including diabetes**
- ✓ **Diabetes is on the increase worldwide and causes many complications**
- ✓ **Social inequalities increases the prevalence and incidence of diabetes**

year	Sample	Measuring social inequalities in health	Prevalence	Incidence	Reference
2004 and 2013	Scotland (180,290 people with type 2 diabetes)	Scottish Index of Multiple Deprivation (SIMD)	?	✓	Read SH., et al., 2016
2006	Health Care Access Panel (HCAP) Germany (39,908 peoples)	German Index of Multiple Deprivation (GIMD)	✓	?	Grundmann N., et al., 2014
2004 and 2006	Survey of Health, Ageing and Retirement in Europe (SHARE) (21,323 peoples)	Educational level	✓	✓	Espelt A., et al., 2013
2010	Sweden (4,334,030 peoples)	Income	✓	?	Wemrell M., et al., 2019
2012	Germany (n ?)	German Index of Multiple Deprivation (GIMD)	?	✓	Jacobs E., et al. 2019
2013 and 2014	Electronic health records of the primary-care system in four districts of Madrid (269,942 peoples)	Composite index of seven indicators from four domains of education, wealth, occupation and living conditions	✓	✓	Bilal U., et al., 2018
2021	Scotland (255,764 people with type 2 diabetes)	Scottish Index of Multiple Deprivation (SIMD)	✓	?	Wang J., et al., 2022

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AIM OF STUDY :

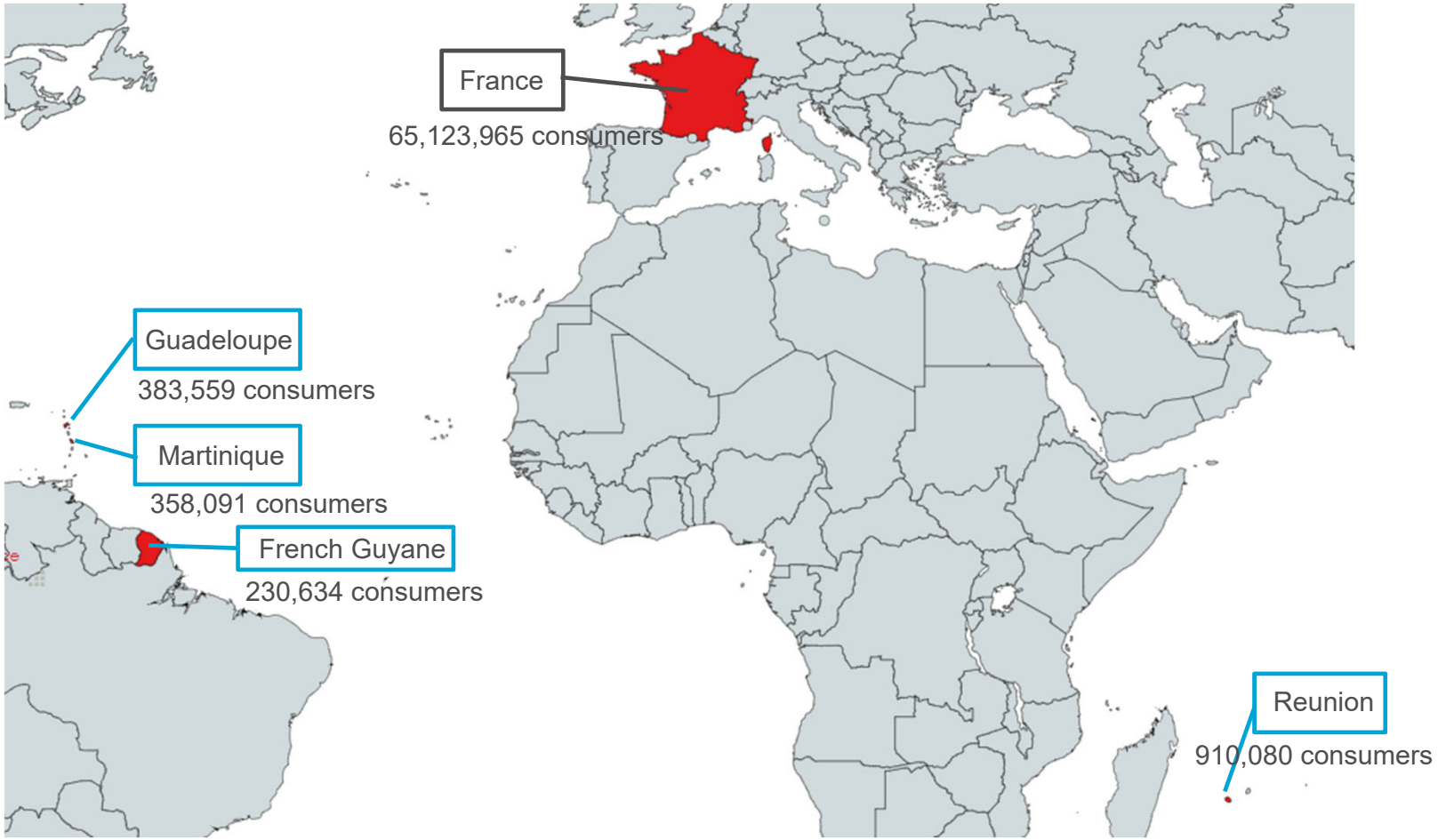
Describe the association between social inequalities in health and prevalence and incidence of pharmacologically-treated diabetes in 2020 in France including French overseas territories (FOT).

MATERIALS AND METHODS

- **Targets:** people with pharmacologically-treated diabetes identified by a validated algorithm *(Fuentes, S., et al., 2019)*
- **Database:** Système National des Données de Santé (SNDS)
- **Indicator of social inequalities in health:** the French deprivation index (FDep) version 2015 in metropolitan France *(Rey G. et al., 2009)* : *ecological indicator measured at the city level* + study of the FOT separately
- **Measurement:** age-standardized prevalence and incidence (European standard population 2013 *(Pace M. et al., 2013)*) stratified by sex
- **Denominator:** health consumers in the SNDS (99% of the French population)

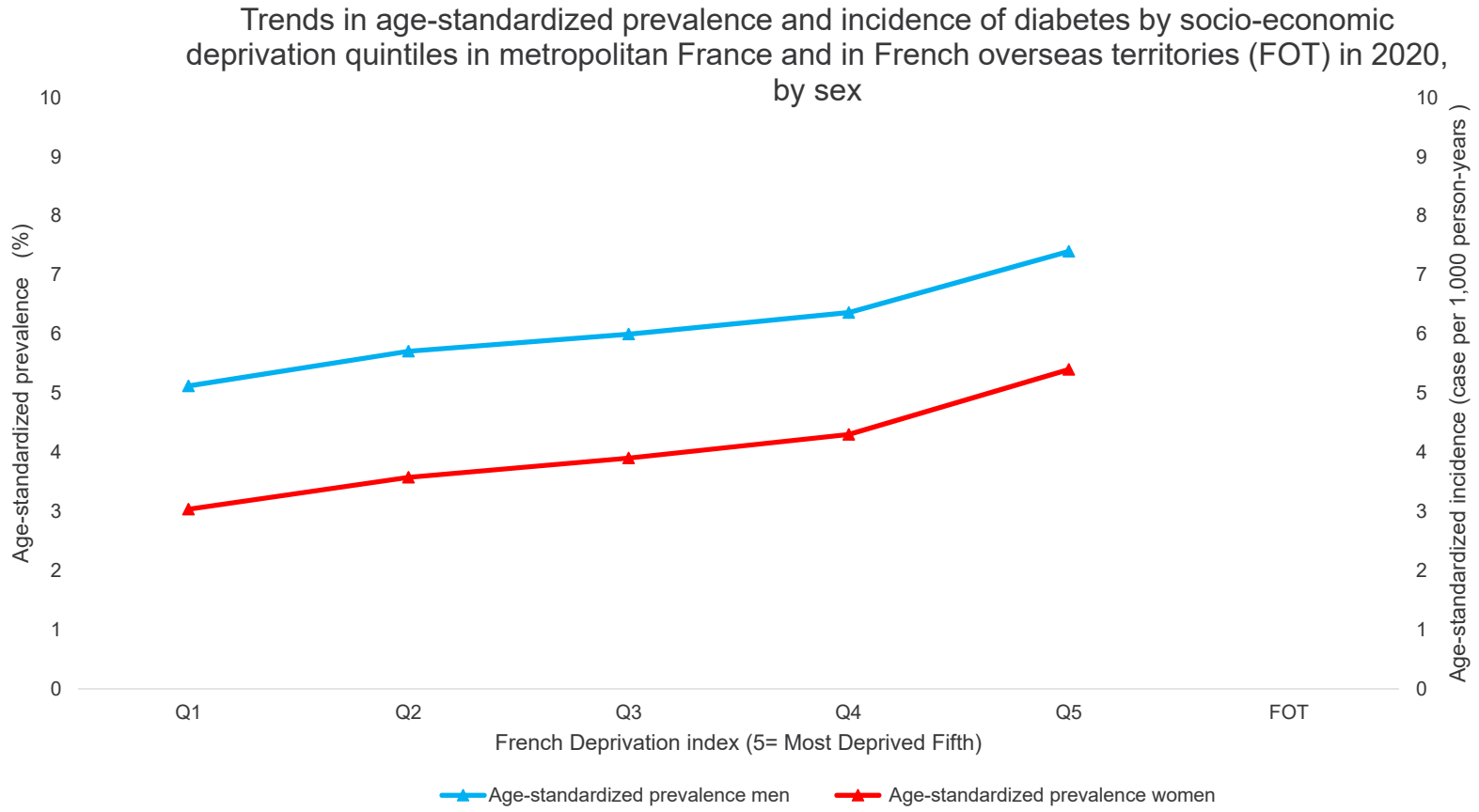
Fuentes, S., et al., Int J Public Health, 2019. 64(3): p. 441-450 ; Rey G, et al., BMC Public Health. 2009;9:33 ; Pace M., et al., Publications Office of the European Union; 2013

MATERIALS AND METHODS



France
French overseas territories

RESULTS


Trends in age-standardized prevalence and incidence of diabetes by socio-economic deprivation quintiles in metropolitan France and in French overseas territories (FOT) in 2020, by sex
Age-standardized prevalence (%)
Age-standardized incidence (case per 1,000 person-years)
0
1
2
3
4
5
6
7
8
9
10
Q1
Q2
Q3
Q4
Q5
FOT
French Deprivation index (5= Most Deprived Fifth)
Age-standardized prevalence men
Age-standardized prevalence women

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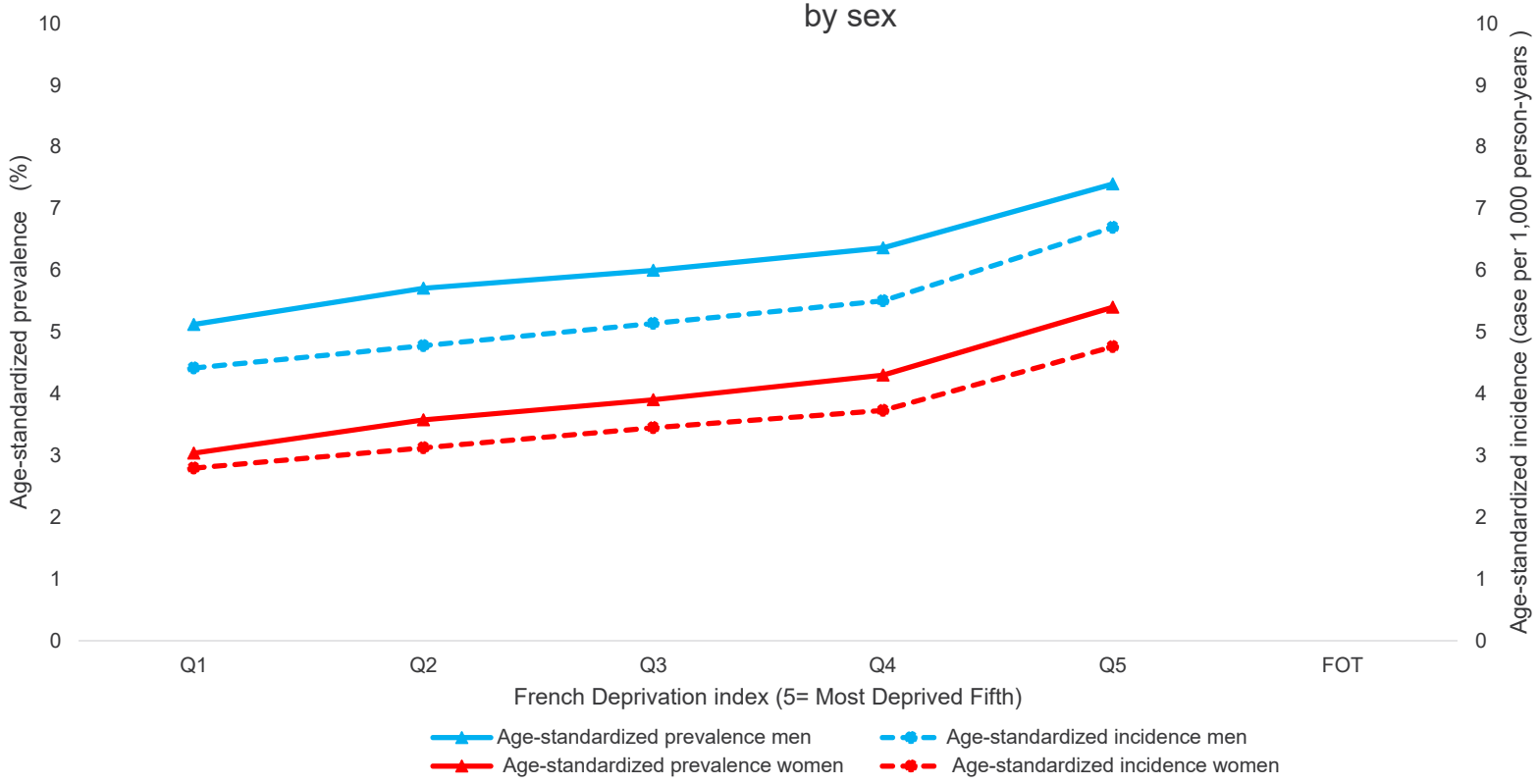

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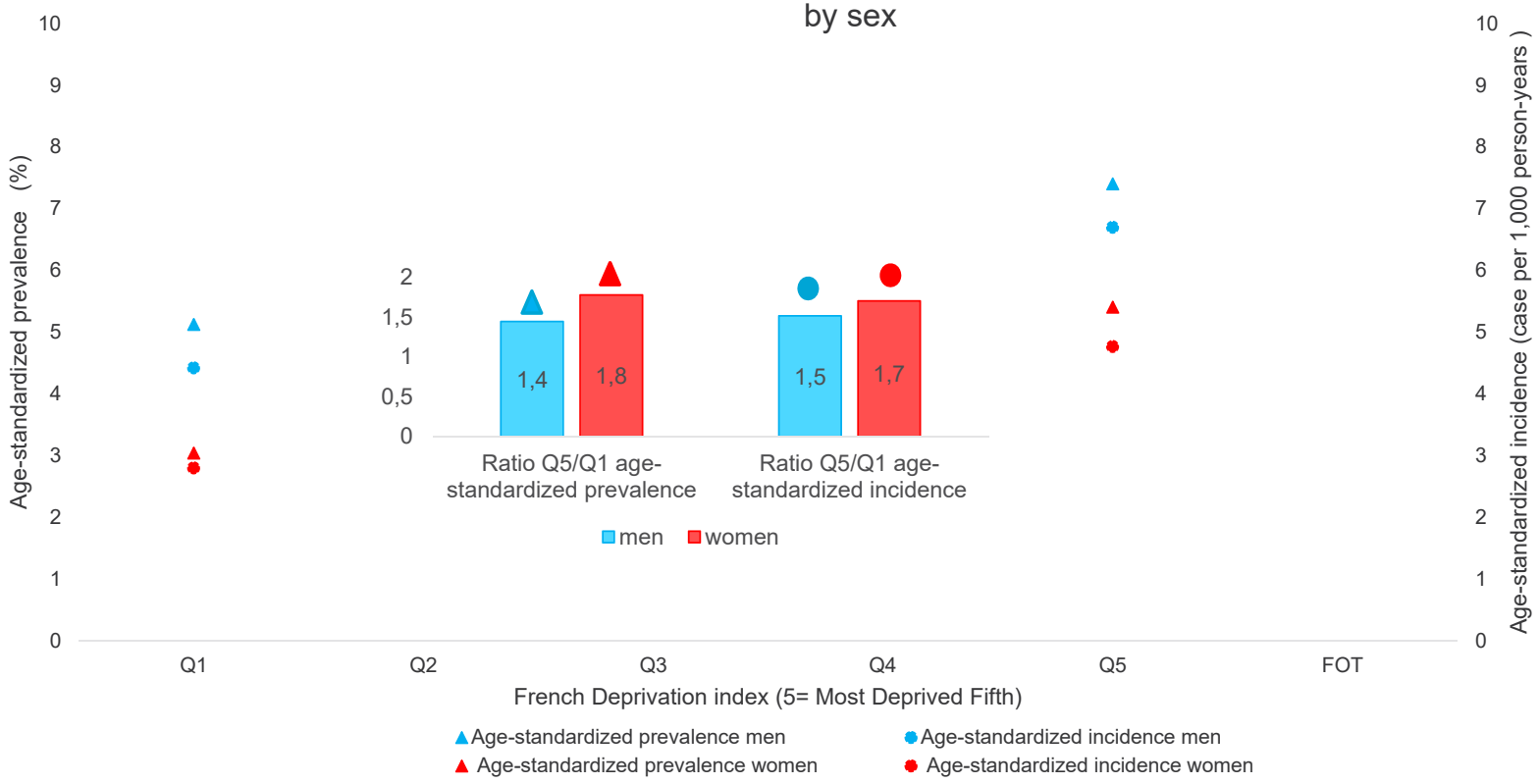

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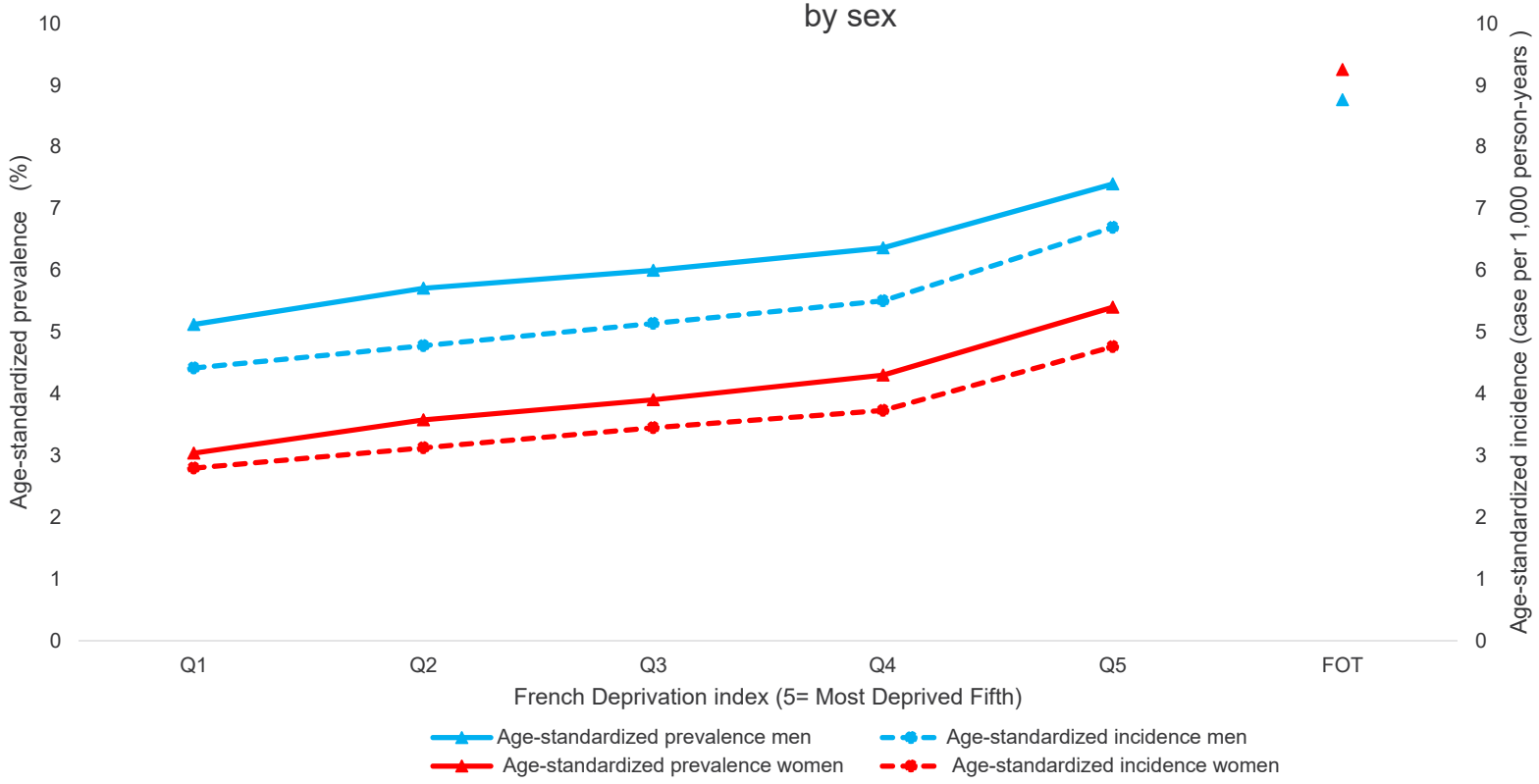

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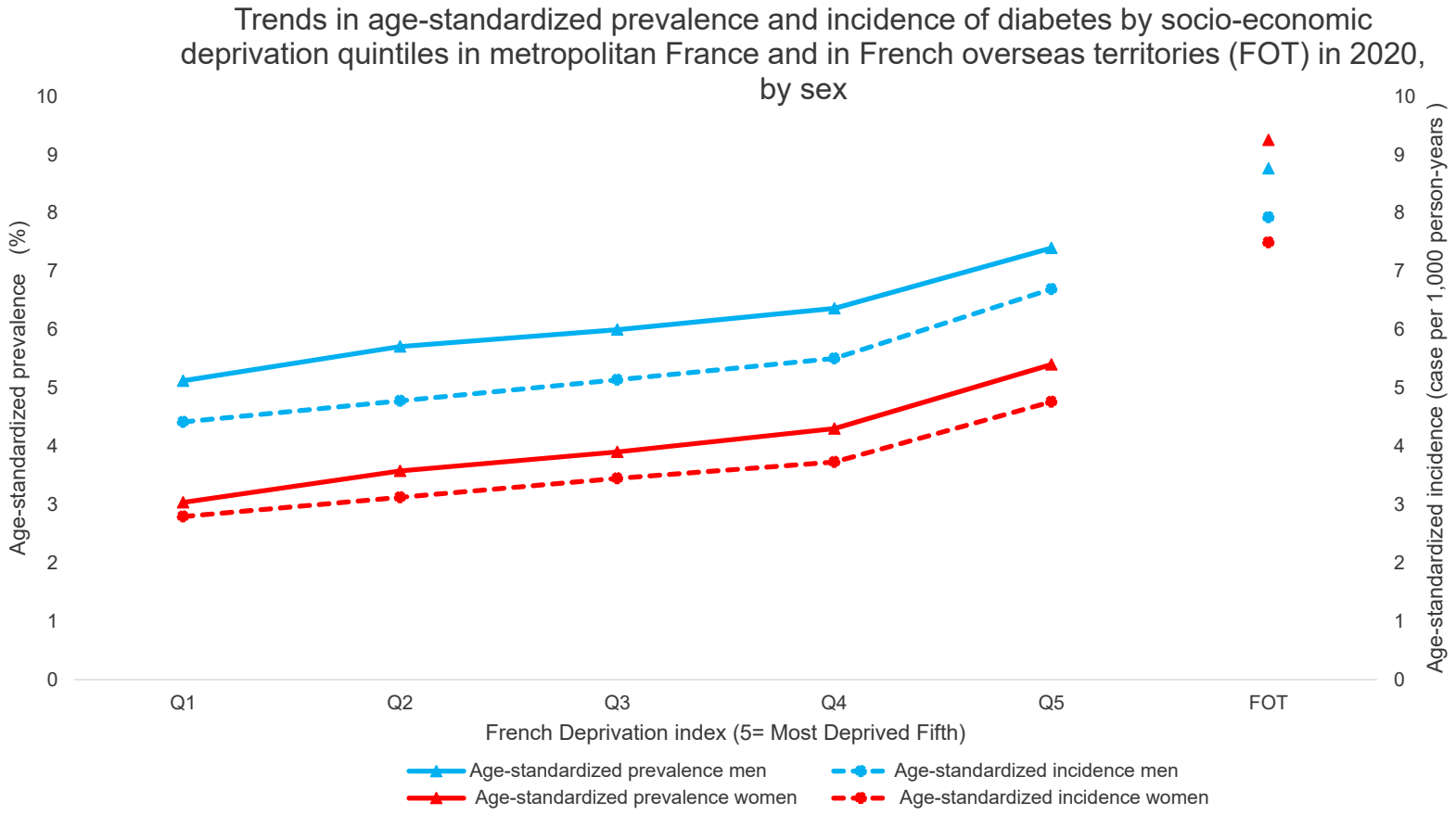
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REMINDER

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2020	**France**	**French deprivation index (Fdep)**	✓	✓	**Guion M., et al, 2022**

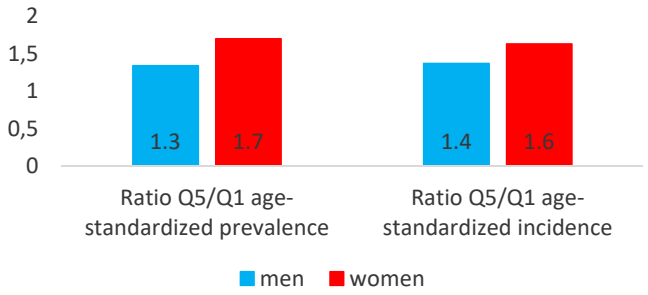
CONCLUSION

- Many social inequalities in health still exist in 2020 for the prevalence and incidence of diabetes
- Prevention actions should be put in place to target the most at risk populations
- **Research in progress to understand the evolution of these social inequalities in health in the prevalence and incidence of diabetes**

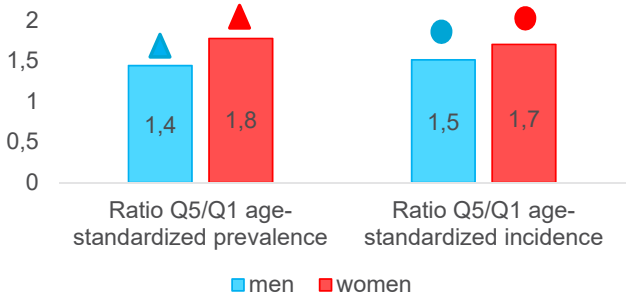
OVERVIEW

Overview of the evolution of social inequalities in health in the prevalence and incidence of diabetes in France and in French overseas territories (FOT)

2012



2020



Thank you for your attention!

Thanks to the Fondation de France for the funding of this project

Summary

Socio-economic inequalities in the prevalence and incidence of pharmacologically-treated diabetes in France in 2020

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Background and aims: Social inequalities in health (SIH) may impact the prevalence of diabetes and diabetes-related complications. The aim of this study was to describe the association between SIH and prevalence/incidence of pharmacologically-treated diabetes in 2020 in France including French overseas territories (FOT).

Materials and methods: Pharmacologically-treated people with diabetes were identified using a validated algorithm in the National health data system (Système National des Données de Santé: SNDS). SIH were measured via the French Deprivation index (FDep) of the 2015 version available for the Metropolitan France. Individuals living in FOT (excluding Mayotte) were considered separately. Age-standardized (2013 European standard population) prevalence and incidence rates were stratified by sex. Denominators were the French health consumers.

Results: Data were available for 65,580,975 health consumers (97.3% of the French population). Age-standardized diabetes prevalence and incidence rates were lower in women than in men in metropolitan France, but prevalence was higher in women than men in FOT. Both prevalence and incidence were increasing by FDep quintiles (Q1 less deprived area, Q5 most deprived area) in metropolitan France and were even higher in FOT, in both genders. The Q5/Q1 ratio of age-standardized prevalence and incidence were higher in women (1.8 and 1.7 respectively) than in men (1.4 and 1.5 respectively).

Conclusion: SIH are positively associated with prevalence and incidence of pharmacologically-treated diabetes in metropolitan France. The association is stronger in women than in men. Diabetes prevalence and incidence are higher in FOT regardless of sex. Future studies will investigate whether the influence of SIH on diabetes epidemiology varies over years.