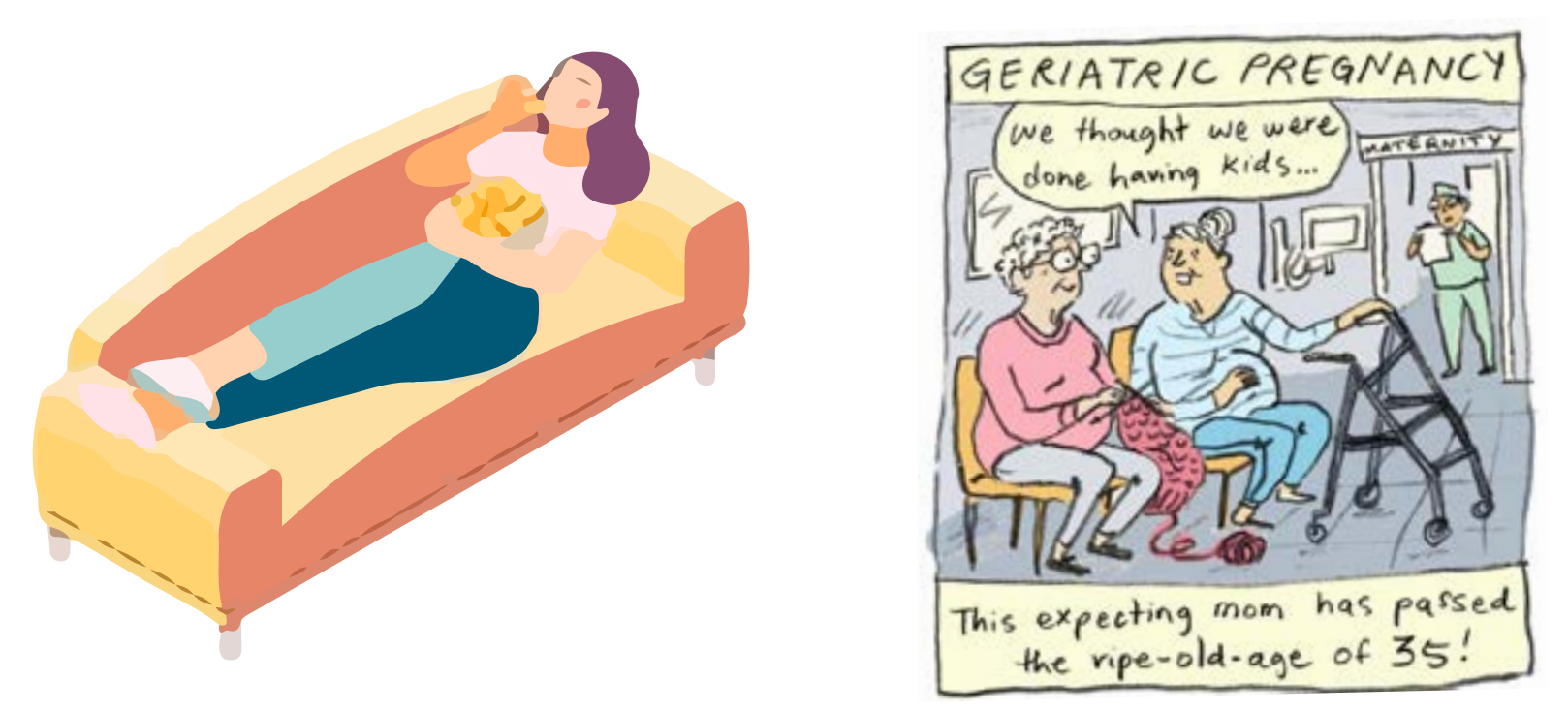


The Prevalence of Gestational Diabetes (GDM) in France: A Nationwide Study

INTRODUCTION

CHANGES IN LIFESTYLE



= Risk factors for gestational diabetes mellitus (GDM)

ADVERSE OUTCOMES OF GDM

Short-term (Regnault *et al.* 2024)

- Preeclampsia / eclampsia, C-section, Hemorrhage
- Prematurity, Large-for-gestational-age

Long-term (Moon *et al.* 2022)

- Type 2 diabetes, cardiovascular disease
- Childhood obesity, glucose intolerance

CHANGES IN RECOMMENDATIONS FOR SCREENING FOR GDM IN FRANCE

2010

Carpenter & Coustan criteria

Universal screening

IADPSG / WHO criteria

Risk-based screening

Age ≥ 35 years / BMI ≥ 25 kg/m²
History of GDM / Family history of diabetes / History of LGA infant

Before <16 GG: Fasting plasma glucose (FPG)	
Between 24 – 28 GW: 50-g GCT + 100-g OGT	Between 24 – 28 GW: 75-g OGT
Late pregnancy: screening if ultrasound evidence of macrosomia or polyhydramnios	

AIMS

Describe the evolution in France from 2012 to 2022 of:

- GDM screening practices
- GDM prevalence according to the time of diagnosis

MATERIALS AND METHODS

DATA SOURCES

French National Health Data System (French acronym: SNDS):

- Including **all reimbursements made by the French National Health Insurance Fund** like outpatient prescriptions, outpatient medical visits...
- Including **hospital discharge database**

Information relating to the same patient can be matched using her or his unique anonymized identification number

STUDY POPULATION

All women who gave birth (deliveries ≥ 22 gestational weeks [GW]) **between 2012 and 2022 in France** (except for Mayotte, one of French overseas territories)

Exclusions :

- Deliveries on account of data link issues
- Pre-existing diabetes

N= 795,691 in 2012 and 692,158 in 2022

OUTCOME : GDM

(Billionnet *et al.* 2017)

- Reimbursement for insulin or
- Reimbursement for 200 glucose strips or
- Diagnosis of diabetes during a hospital stay

Date of diagnosis of GDM = the date of the last glycemic screening assessment before insulin, glucose strips or hospitalization with a diagnosis of diabetes

Classification of GDM into three subgroups according to their gestational age at diagnosis:

- Before 22 GW (GDM<22)
- Between 22-30 GW (GDM22-30)
- After 30 GW (GDM>30)

RESULTS

Figure 1 | Changes in GDM screening according to the time of screening

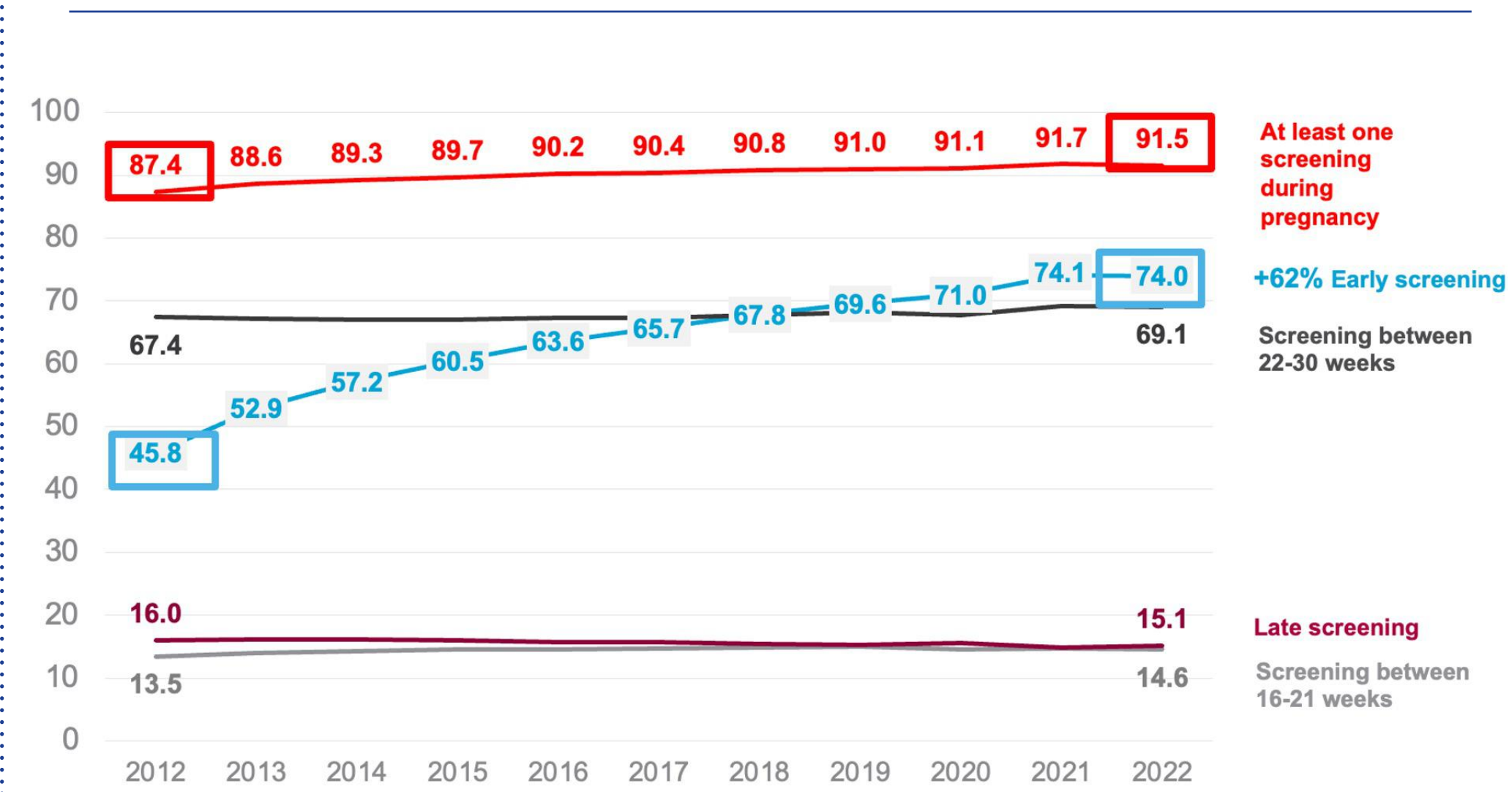


Figure 2 | Evolution of GDM prevalence

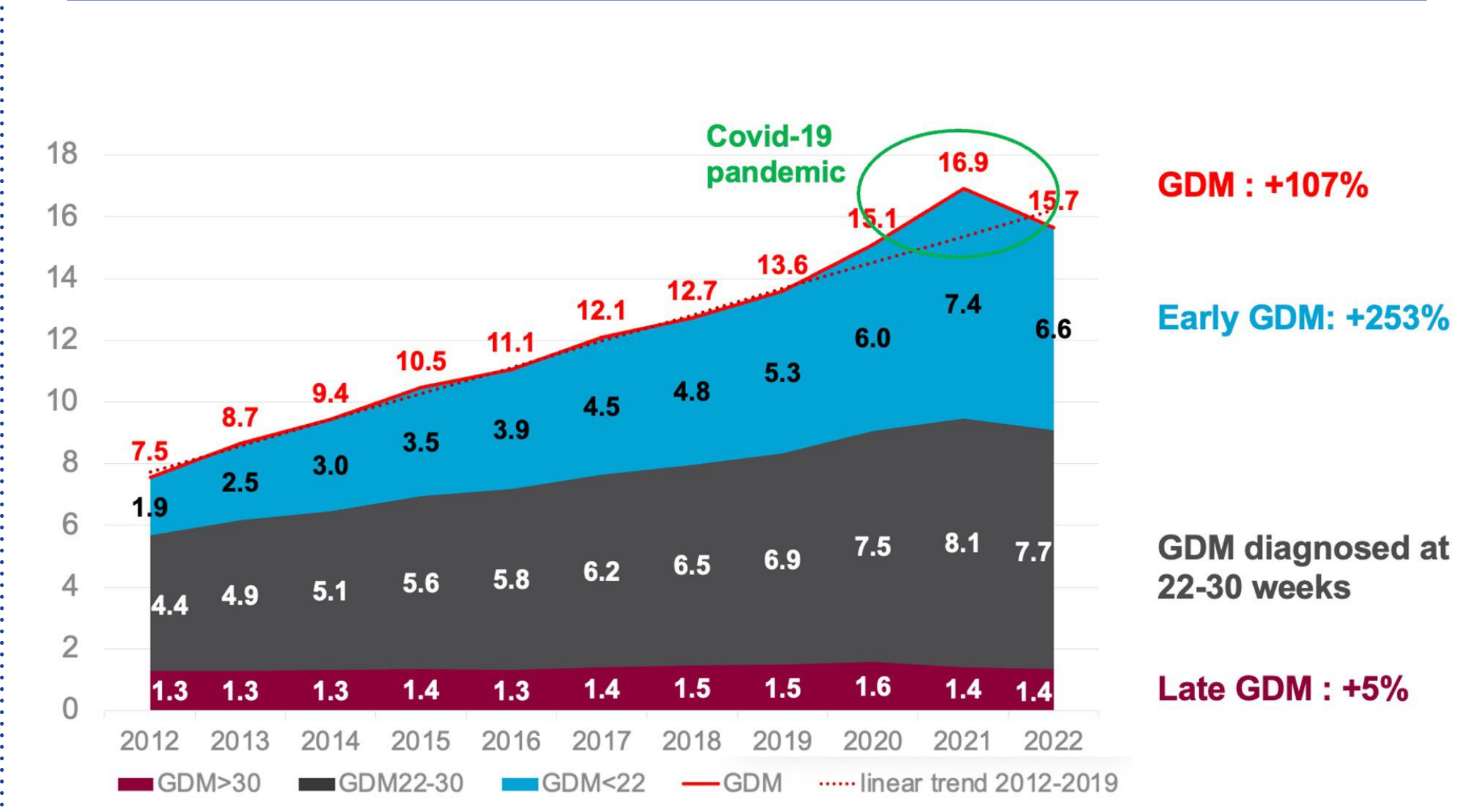
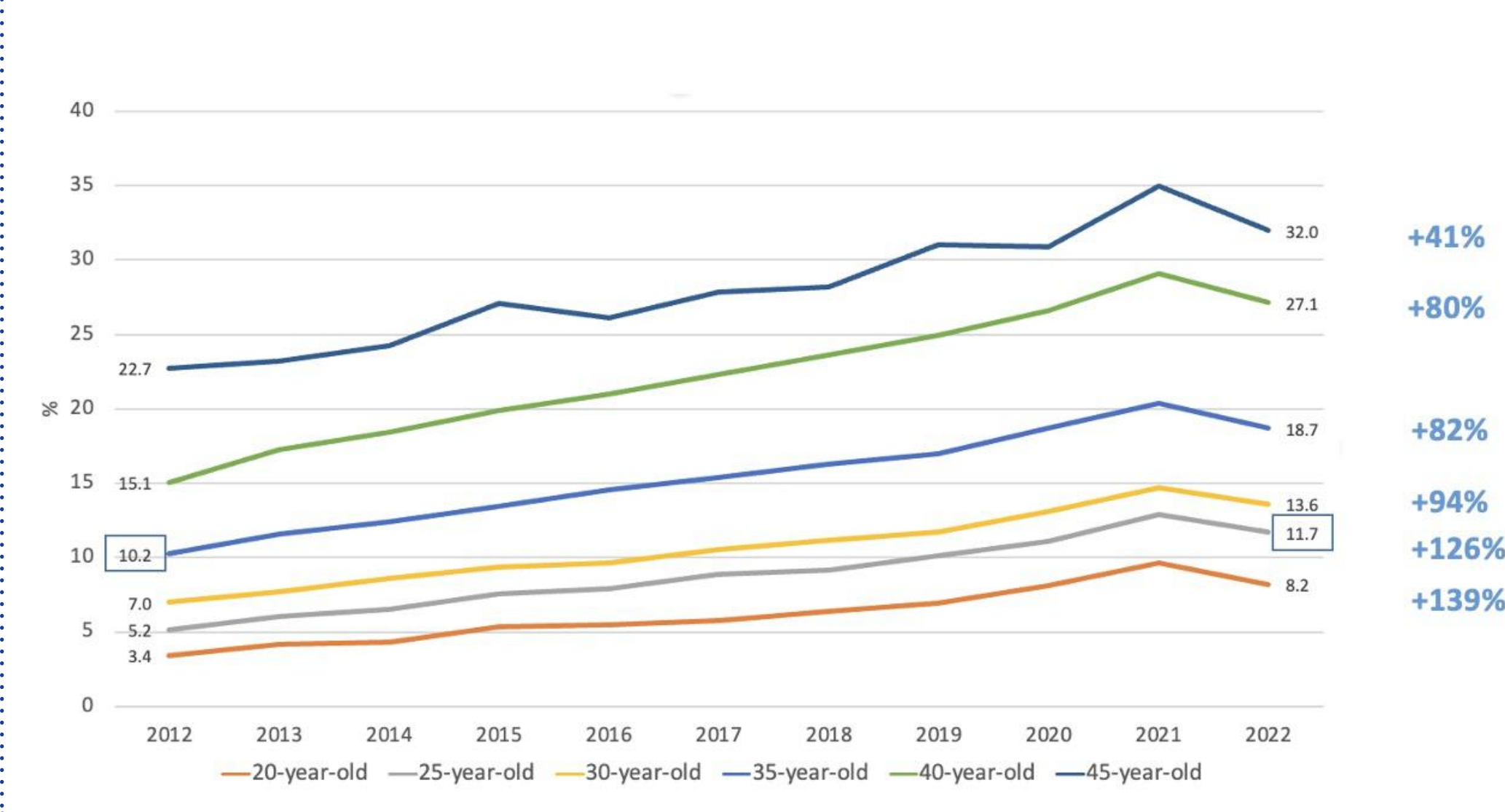


Figure 3 | Evolution of GDM prevalence at specific age points



STRENGTHS

- National and exhaustive study
- Based on reimbursement of healthcare services (no memory bias)

LIMITATIONS

- Body mass index unavailable in this database

KEY POINTS AND CONCLUSION

- Risk-based screening for GDM globally not applied in France
- While the early screening increased by 62% (from 45.8 to 74.0%) between 2012 and 2022, the prevalence of GDM<22 more than tripled (from 1.9 to 6.6%)
→ diagnostic criteria to be adapted in early pregnancy?
- Greater increase in GDM in young women and during Covid-19 pandemic years
- Consistent with the global estimate (14%) (Sweeting *et al.* 2024)

PERSPECTIVES

Multivariable models including annual regional overweight prevalences in progress.

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