

# Temporal trends in rates of pregnancy, live birth, and gestational outcomes (2012-23)

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## Background

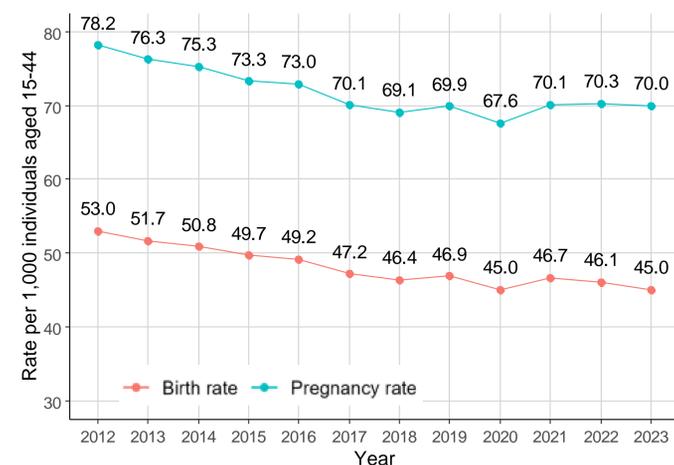
- Monitoring birth rates and pregnancy rates is important for tracking population growth and decline, economic and environmental impact, and the provision of healthcare services.
- Pregnancy rates are challenging to quantify in most data sources and only a handful of studies have documented how the rates of gestational outcomes vary over time.

**Objective:** Describe trends in rates of pregnancy, live birth & gestational outcomes

## Methods

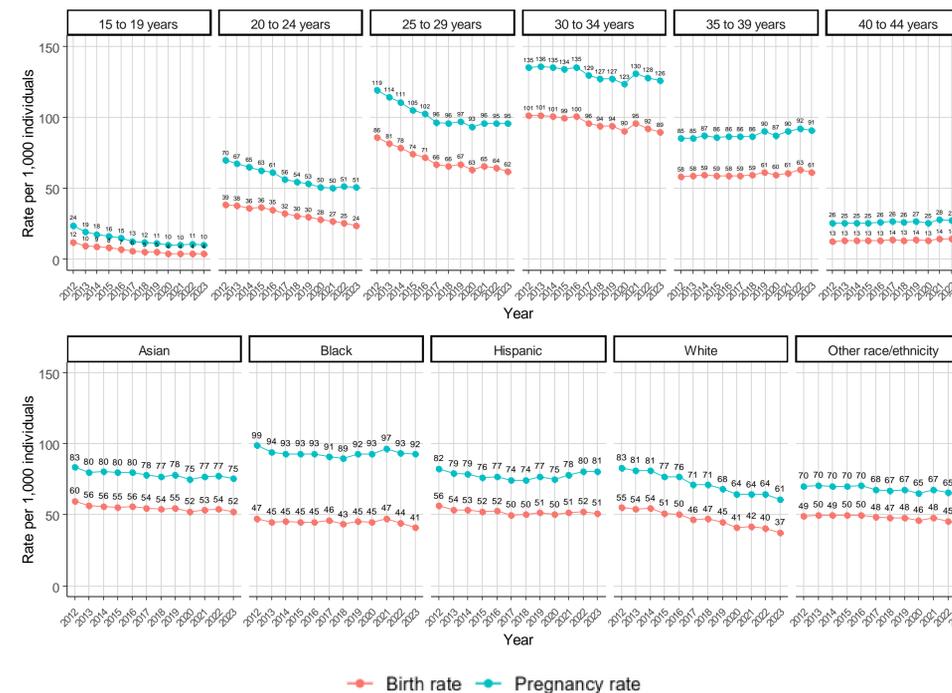
- Data Source:** A comprehensive database of all pregnancies in an integrated health care delivery system in Northern California (KPNC) from 2012-2023.
- Exclusions:** No KPNC membership at pregnancy onset or outcome.
- Statistical Methods:** Poisson regression models used to estimate % change over the study period, adjusted as:
  - Overall pregnancy and live birth: age & race and ethnicity
  - Gestational outcomes (cesarean, miscarriage, ectopic pregnancy, molar pregnancy, still birth, induced abortion): age, BMI, NDI, race and ethnicity, & year

## 1. Time Trends in Pregnancy & Live Birth Rates

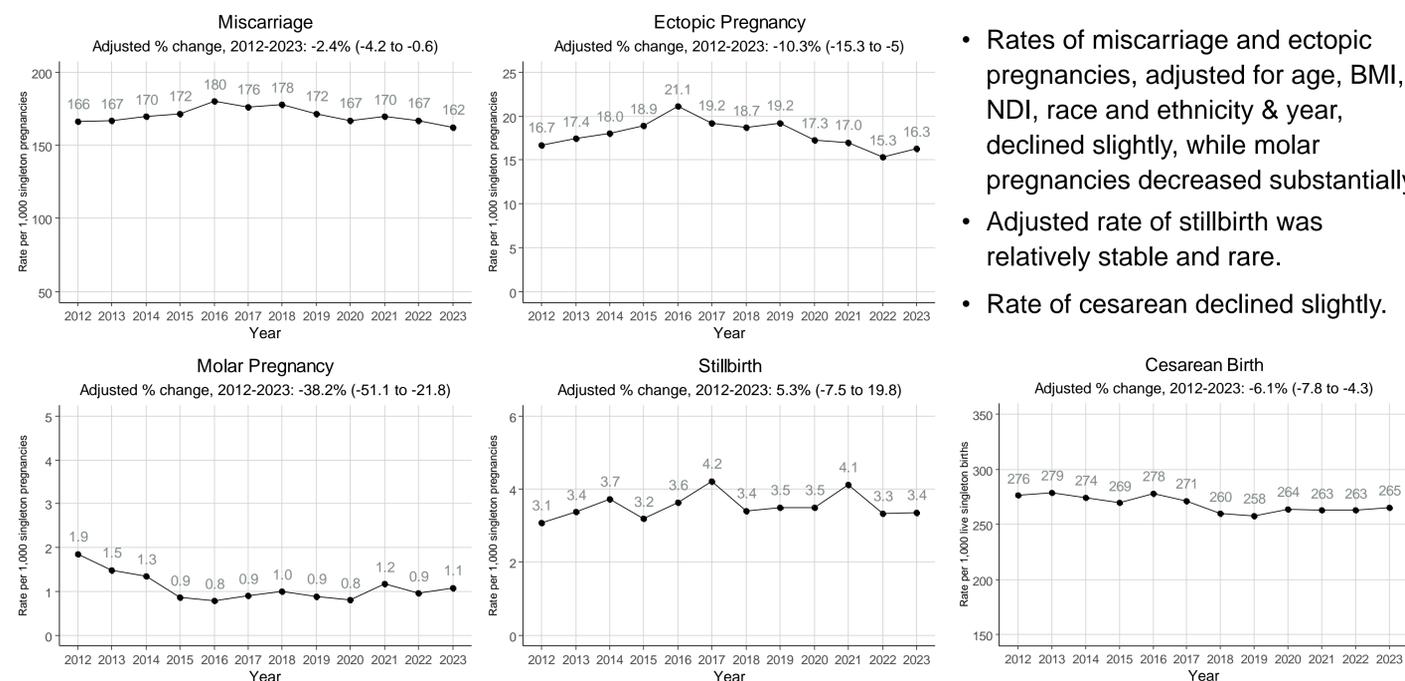


- Rates adjusted for age & race and ethnicity per 1,000 individuals declined over time, dropping to their lowest in 2020; in later years they returned prior levels.

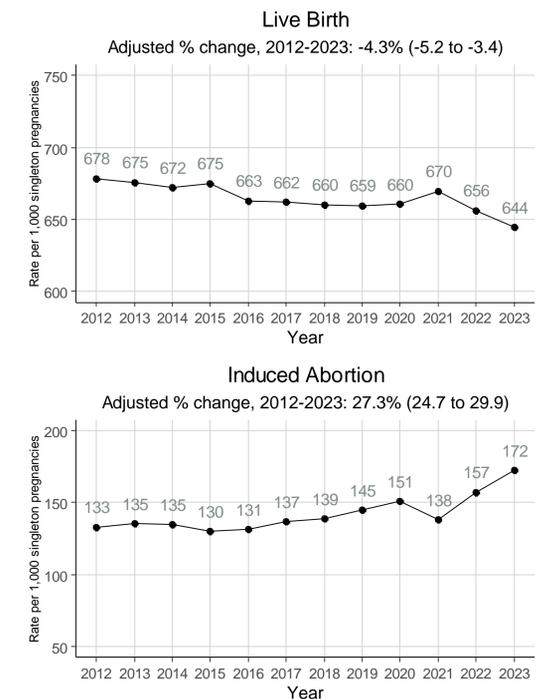
## 2. Time Trends in Pregnancy & Live Birth Rates, Stratified by Age & Race and ethnicity



## 3. Time Trends in Rates of Cesarean, Miscarriage, Stillbirth, Molar & Ectopic pregnancies



## 4. Live Birth & Induced Abortion



## Conclusions

- Trends in pregnancy and live birth rate in an integrated delivery system mirror national data
- There was an overall decline in the rate of live births and gestational outcomes and increasing rates of induced abortion.
- This suggest shifting needs from health care and social systems in the coming years that should be considered when developing health care policies and determining resource allocation.

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