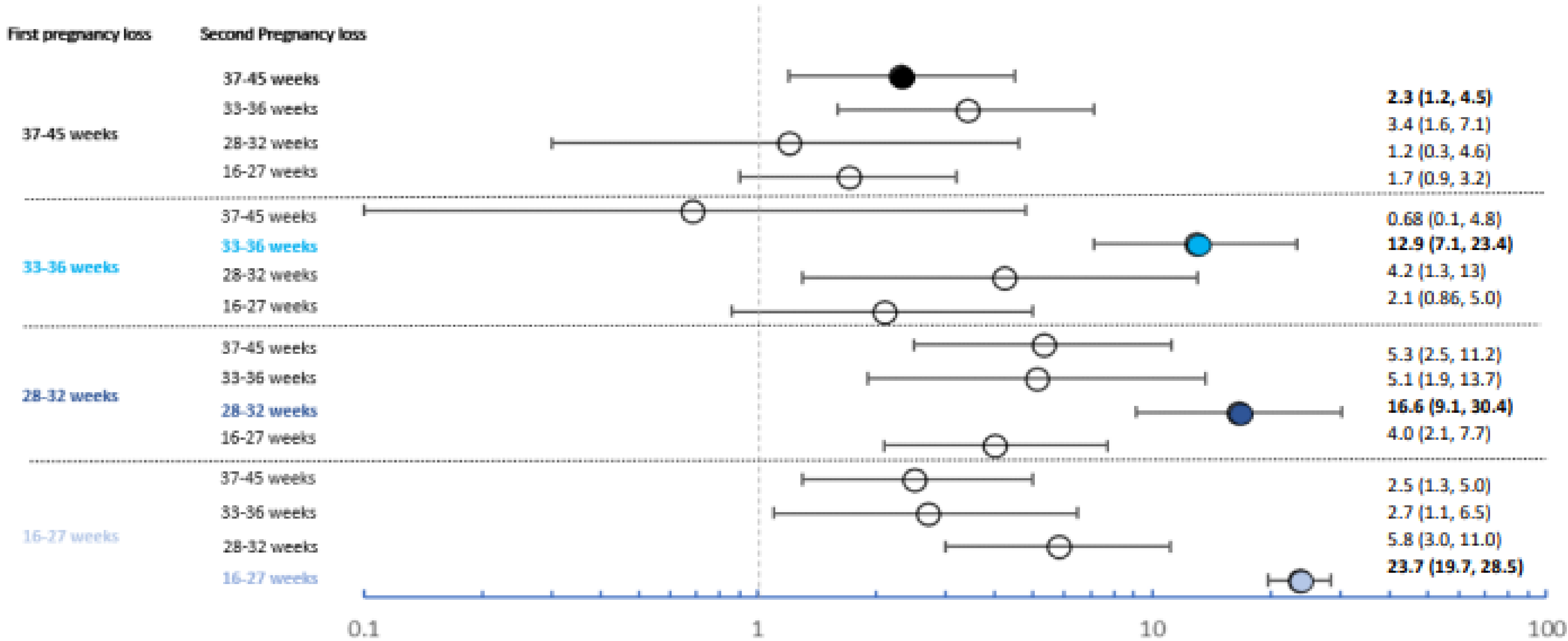


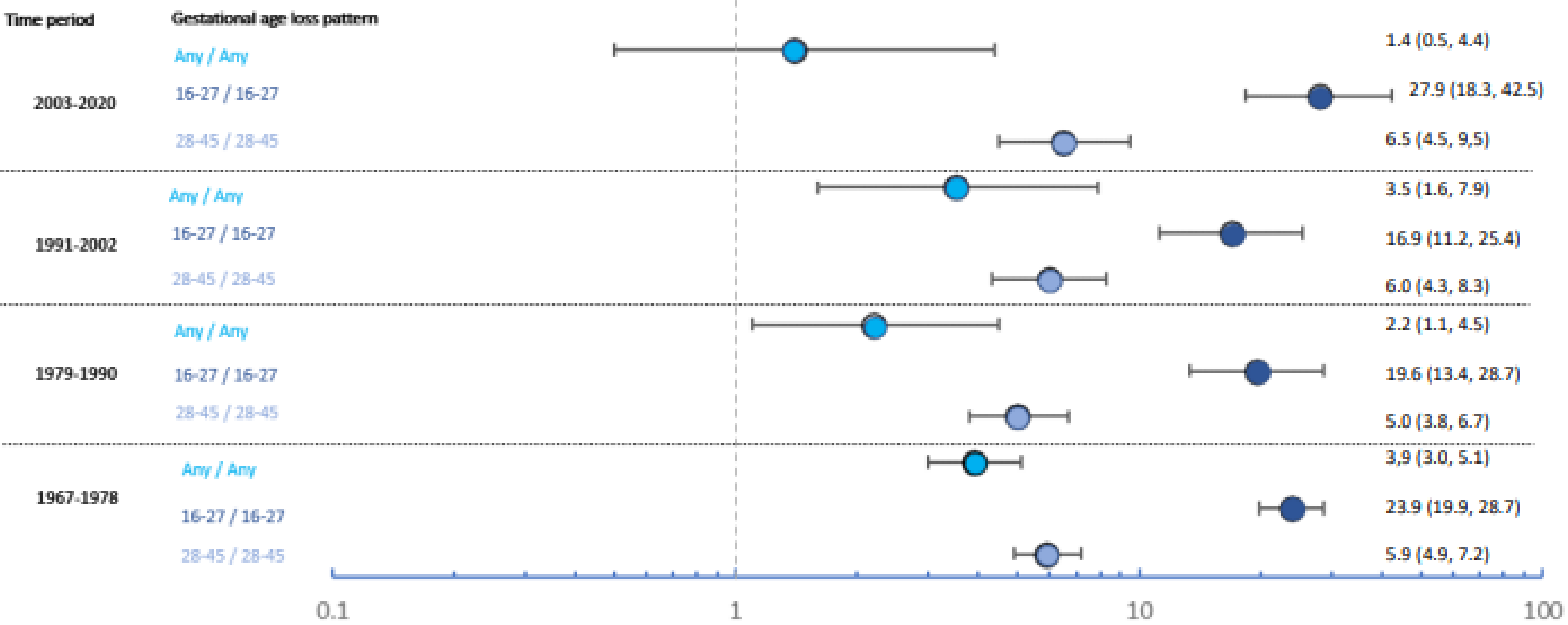
Recurrence of pregnancy loss by gestational age; a Norwegian national cohort study

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Gestational Age Specific pattern of pregnancy loss recurrence relative odds (fetus at risk approach) of a second pregnancy loss with different gestational age categories of first pregnancy loss in women with a pregnancy loss versus women with a first livebirth, Norway 1967-2020, adjusted for maternal age, level of education and marital status at first birth.



Time trends of gestational age specific loss showing odds ratios with 95% confidence intervals for gestational age specific recurrent pregnancy loss (early: 16-27 weeks, late: 28-45 weeks) by four time periods versus women with a first livebirth in those time periods, Medical Birth Registry of Norway, 1967-2020. Estimates were obtained using logistic regression with the fetus at risk approach, adjusted for maternal age, level of education and marital status at first birth.



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Background

Pregnancy loss

Few outcomes are worse than the loss of a pregnancy, which can have a lasting impact on a woman’s mental health, regardless of when this loss occurs ¹. In addition, the tendency for adverse outcomes such as pregnancy loss to recur is well known ². Researching recurrence of loss is important for these affected women.

Gestational age

The definition of stillbirth varies from country to country and through different time periods ³. Within Norway a stillbirth is classed as a loss over 22 weeks ⁴. Loss before this period is less studied, despite many of these late second trimester miscarriages having the same causes as early stillbirths ⁵.

Time Trends

Obstetric care had advanced considerably over the past 50 years. Recurrence of pregnancy loss towards term can be addressed with facilitating earlier delivery through induction or section. However, despite these advances options at earlier gestations are more limited and this is reflected in pregnancy loss rates prior to 28 weeks remaining high in developed countries ⁶.

Aims

This study measured recurrence of pregnancy loss for mothers who suffered a loss in their first pregnancy, even in early gestations, and observed variations in this by time period and gestational age.

Methods

Data was collected prospectively from the **Medical Birth registry of Norway (MBRN) 1967-2020**

Exposure

Pregnancy loss in first pregnancy by gestational age

Outcome

Pregnancy loss in second pregnancy by gestational age

Statistical analysis

Relative odds of loss calculated by using logistic regression to adjust for confounders

Exclusion Criteria

- Gestations less than 16⁺⁰ and over 45⁺⁶ weeks
- First birth not registered in MBRN
- Z—scores for fetal weight greater than 3.5 or less than -3.5
- Plural pregnancies
- Missing data

Conclusions

Pregnancy loss tends to **recur** at the **same gestational age** in a second pregnancy. **Earlier gestational age losses** are more likely to recur. Pregnancy loss recurrence has decreased over time but **remains highest for early recurrence**.



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