

Efficacy of preconception care in improving pregnancy outcomes for women with pre-existing diabetes mellitus

1. Introduction

Pregnant women with pre-existing diabetes mellitus (DM) face higher risks of maternal and fetal complications¹. These risks can be reduced by delivering pre-conception care which aims to review medications, optimise glucose control and ensure high dose folic acid administration².

2. Objectives

This study evaluates the effectiveness of preconception care in improving maternal health for women with pre-existing DM.



3. Methods

Setting

Preconception clinic at Queen Elizabeth Hospital Birmingham.

Participants

99 clinic appointments (10/07/2023 - 11/11/2024), 73 patients included; 34 new referrals and 43 follow-up.

Data setting

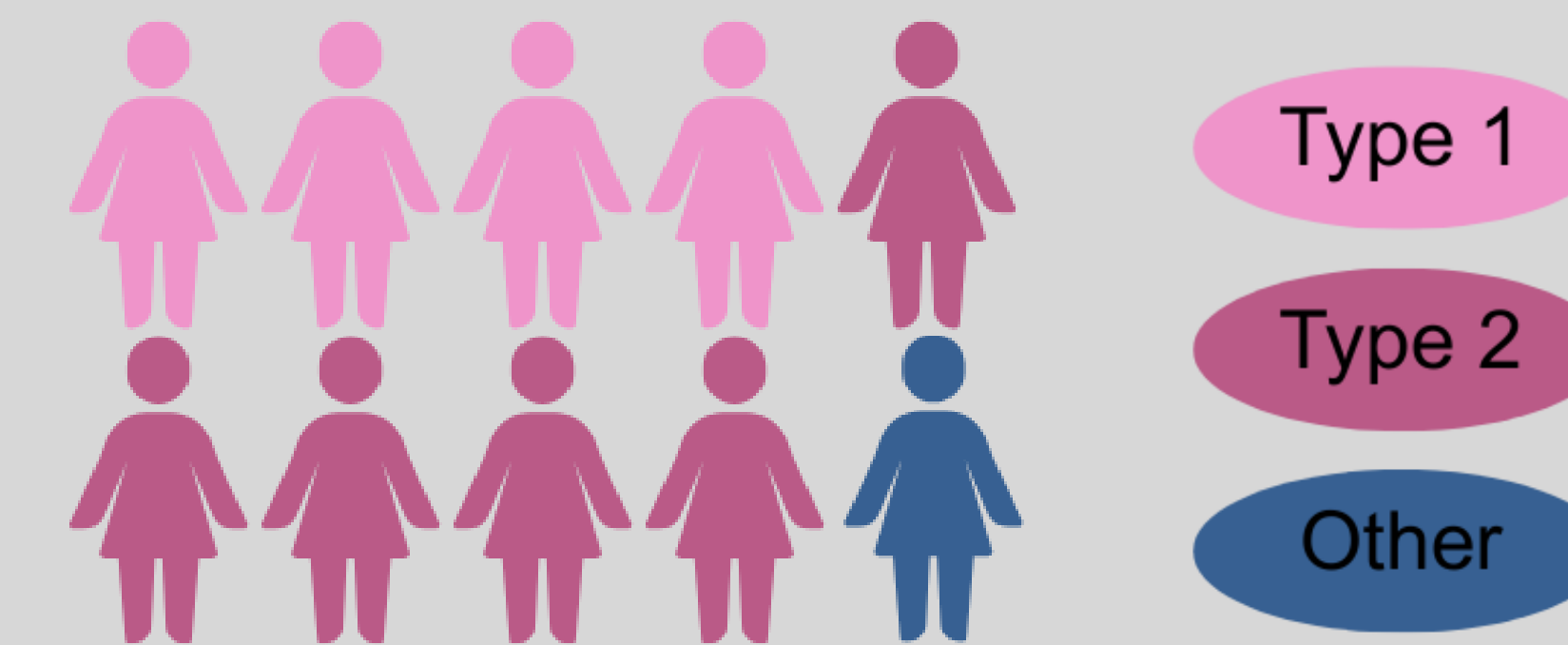
Retrospective cohort study. Used electronic medical records.

Analysis

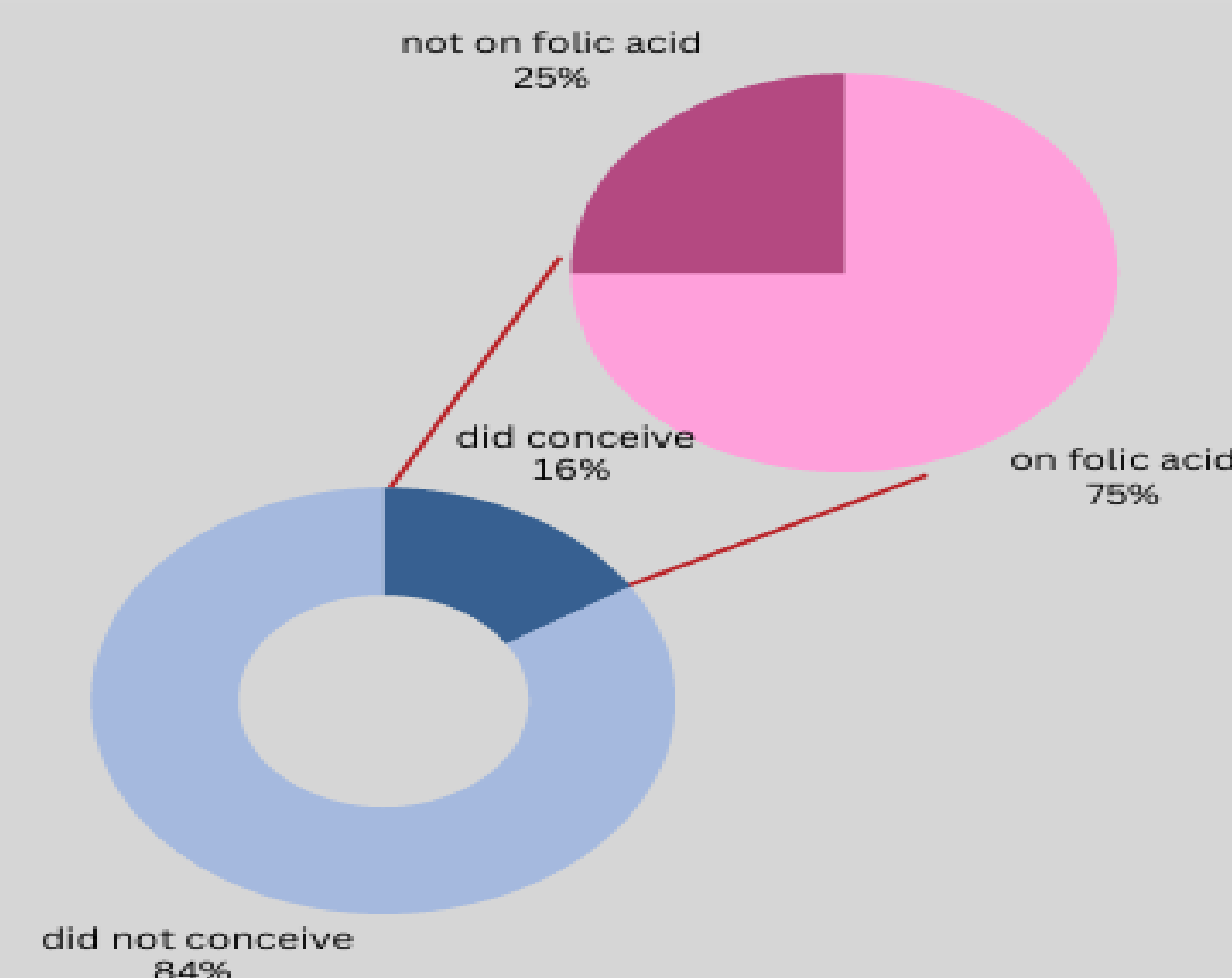
Analysed using excel. Subgroup analysis performed stratified by appointment type.

4. Results

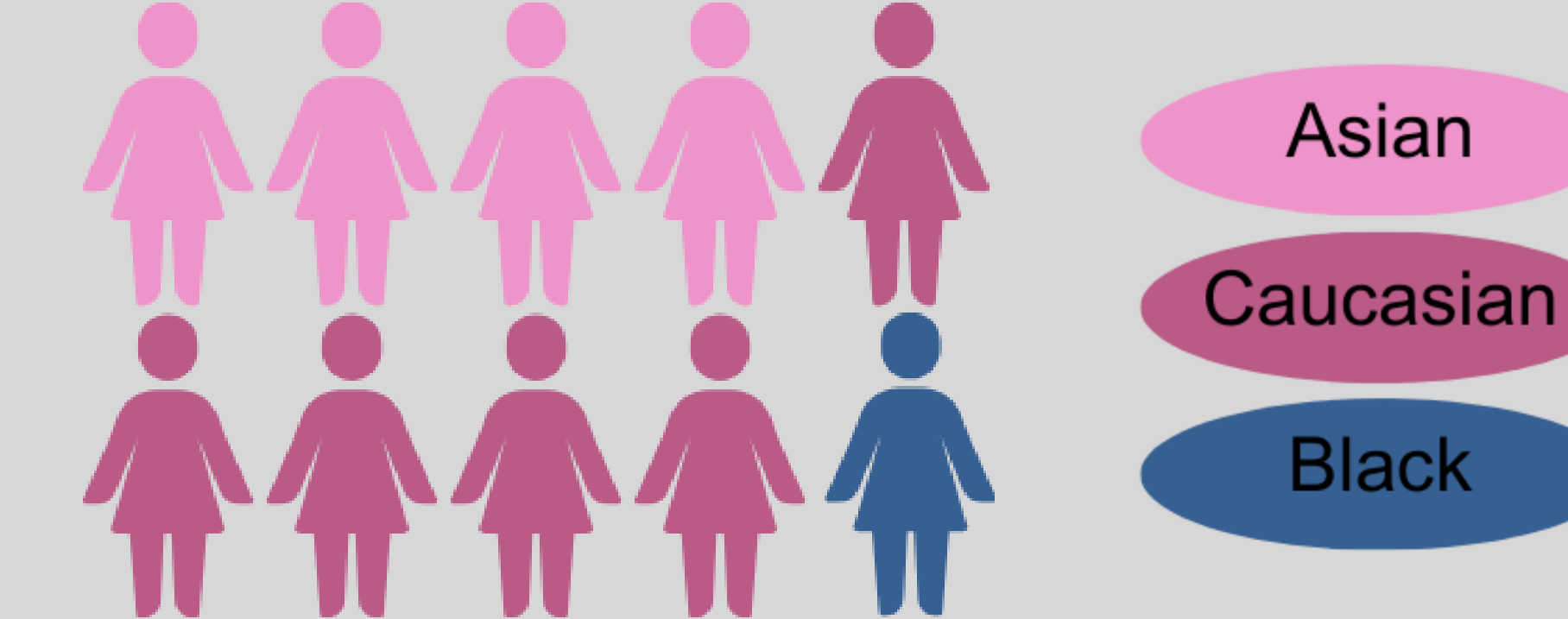
Type of diabetes



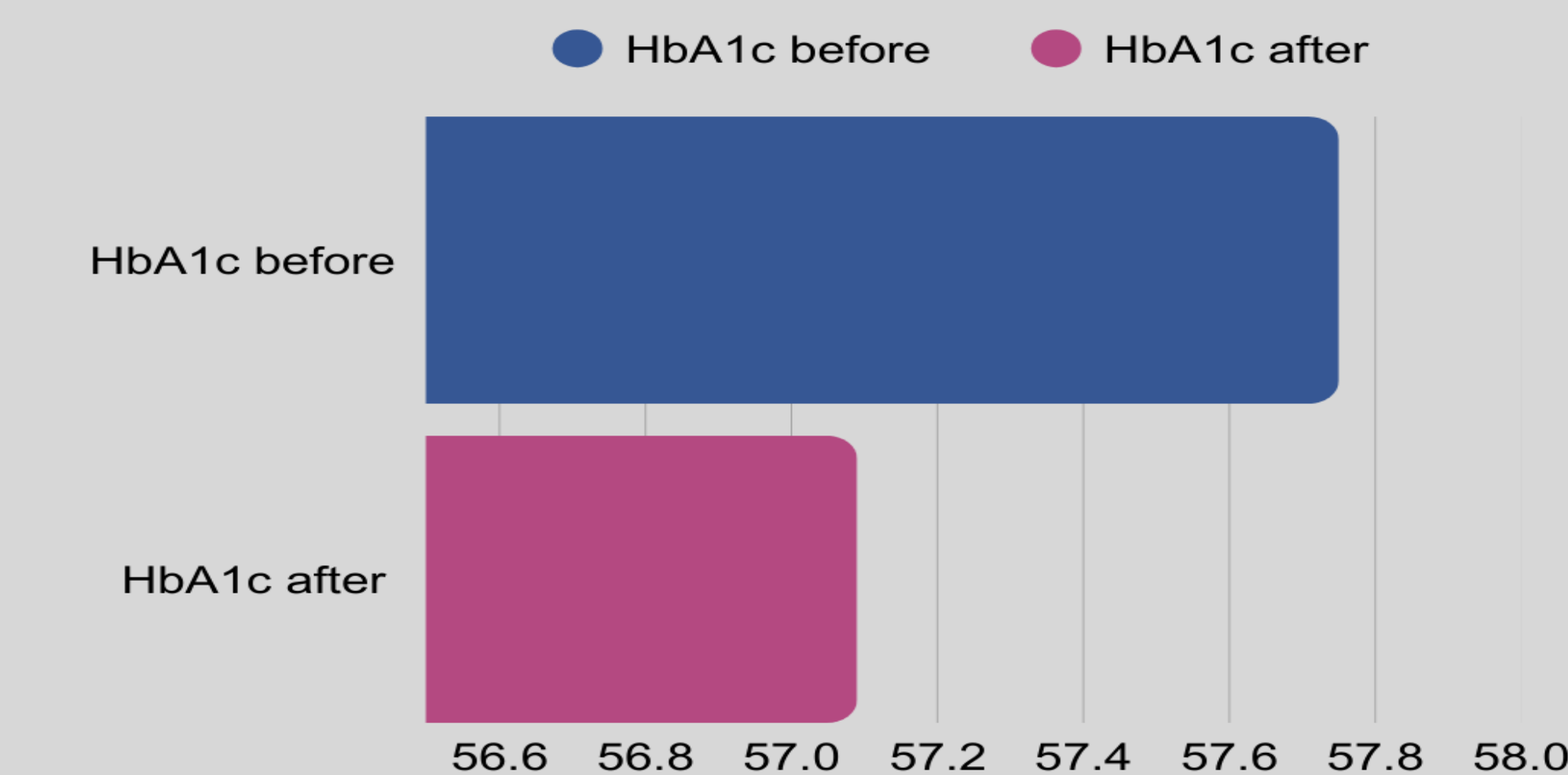
Percentage of patients on folic acid out of those who conceived



Ethnicity



Mean difference in HbA1C post clinic



5. Conclusion

- Preconception care has a positive impact on maternal health and diabetes management.
- This is in line with NICE guideline recommendations.
- However, our study is single-centered with a small sample size and short follow-up period.
- High DNA rates were noted; further analysis required.
- Further multi-centre studies with extended follow up required.

6. References

- 1.Wahabi HA, Alzeidan RA, Bawazeer GA, Alansari LA, Esmaeil SA. Preconception care for diabetic women for improving maternal and fetal outcomes: asystematic review and meta-analysis. BMC Pregnancy and Childbirth [Internet]. 2010 Oct 14 [cited 2025 Jan 13]; 10(63). Available from: <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-10-63>
- 2.Broughton C, Douek I. An overview of the management of diabetes from pre-conception, during pregnancy and in the postnatal period. ClinicalMedicine [Internet]. 2019 Sep [cited 2025 Jan 29]; 19(5). Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6771338/#CIT0001>
- 3.NICE. Recommendations | Diabetes in pregnancy: Management from Preconception to the Postnatal Period | Guidance | NICE [Internet]. 2020 [cited2025 Jan 29]. Available from: <https://www.nice.org.uk/guidance/ng3/chapter/Recommendations#preconception-planning-and-care>