



## Low-cost antenatal lifestyle interventions to limit pregnancy weight gain:

### A systematic review

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### Background

Obesity is a leading risk factor contributing to disease and perinatal mortality and morbidity. A significant proportion of pregnant women in Queensland are living with obesity despite refinement of guidelines and health strategies. Evidence around lifestyle interventions show modest clinical outcomes; implementing viable, evidence based options is vital to continue addressing the obesity epidemic.

### Objective

Identify low-cost, lifestyle interventions that prevent women with a BMI > 25 kg/m<sup>2</sup> gaining excessive weight during pregnancy.

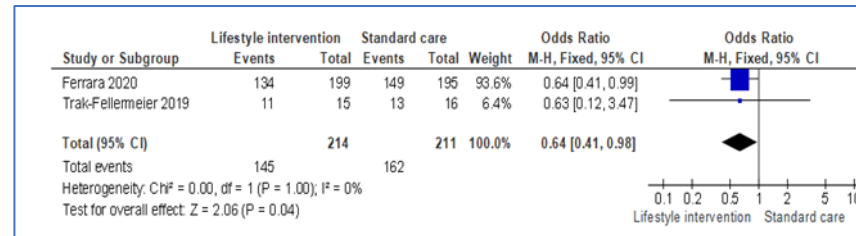
### Method

Databases including Cochrane, Ovid MEDLINE, PubMed were search using MeSH terms and keywords. Titles and abstracts of references were then assessed against the selection criteria.

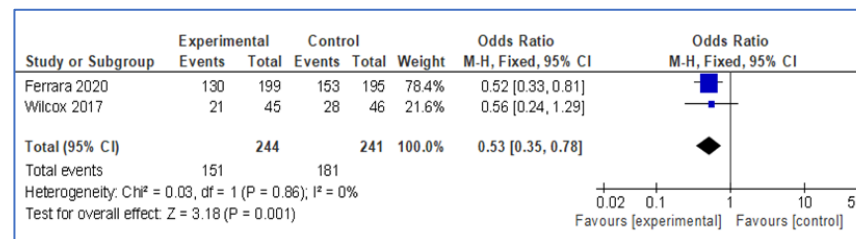
### Results

Three randomised controlled trials were reviewed involving 529 women in a low-cost lifestyle intervention combining telephone-based interactions plus 1 - 3 face to face appointments (alongside 'usual' antenatal care). The intervention included education on nutrition and activity, individual goal setting, self-weighing and a pregnancy weight gain tracking graph. Overall results indicated significance between the lifestyle intervention and pregnancy weight gain. The level of heterogeneity was high indicating that these results should be interpreted with caution and further research is warranted.

**Weekly weight gain:** Odds Ratio 0.64: 95% CI: 0.41-0.98 P=0.04



**Total pregnancy weight gain:** Odds Ratio: 0.53: 95% CI: 0.35-0.78 P=0.0001



### Conclusion

Low cost interventions using a mix of face to face and telephone interactions with a qualified health professional (e.g. dietician) accompanying standard antenatal care, supports women with healthy pregnancy weight gain. Whilst the review is underpowered, it offers a significant clinical result.

More research is recommended to support viable low-cost lifestyle interventions to improve health outcomes for women and their babies and work towards reducing long term and generational obesity.

### References

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