Pandemic preparedness and safe and acceptable antenatal care (PPANC) study protocol: Self-administered symphysis-fundal height measurement.

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# BACKGROUND

The COVID-19 pandemic highlighted the need to develop models of antenatal care that rationalise face-to-face clinic visits to reduce the risk of transmission in healthcare.

#### METHODS

PPANC is a prospective cohort study of 140 normal-risk women undertaking antenatal care in the Northern Territory.

Telehealth appointments may be suitable alternatives for normal-risk pregnant women, utilising self-administered symphysis-pubis fundal height (SFH) measurements for home-based monitoring of fetal growth.

## AIMS

To determine the correlation of self-administered SFH readings taken by normal-risk pregnant women with those taken by a health professional and to assess acceptability of this strategy.

We will include women with a singleton, normal-risk pregnancy at  $\leq$ 22 weeks at enrolment by ultrasound. Women with BMI >30, multiple pregnancy, fibroids, or congenital anomalies will be excluded.

Women will perform four self-administered SFH measurements at each visit until delivery. An educational educational training video has been made for display in clinic: <u>https://www.youtube.com/watch?v=IXP4zdbQm5I</u>.

Measurements are then performed by a health professional who is blinded to the result and gestation. An acceptability questionnaire will be completed at the final antenatal visit.

Bland-Altman plots will be created to assess absolute differences between experimental and reference values, correlation between both measurements will be assessed by calculating the Pearson's correlation coefficient.

We hypothesise that self-administered and professional SFH readings will correlate.



# DISCUSSION

Recruitment will commence in July 2022 and is aimed to conclude by the end of 2022.

If this study supports that women can self-measure SFH with clinically reliable results, this strengthens our capacity to provide safe models of antenatal care during times of community transmission and reliance on Telehealth.

## REFERENCES

#### **Image 1**. Symphysis-pubis fundal height measurement<sup>2</sup>

- Bergman, E., Kieler, H., Petzold, M., Sonesson, C. & Axelsson, O. Self-administered measurement of symphysis-fundus heights. *Acta Obstet Gynecol Scand* 86, 671-677, doi:10.1080/00016340701258867 (2007)
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