# Iodine status of pregnant women in urban Melbourne

RANZCOG Annual Scientific Meeting 2022 GOLD COAST
Transformation: Making Waves

*Dr Kiran Atmuri[1], A/Prof Louise Kornman[2], Prof Maria Makrides[3], Dr Shao J Zhou[3] and Dr Molla Wassie[4]*

*[1]Monash University, [2]Royal Women's Hospital, [3]University of Adelaide [4]Flinders University*

## Introduction

Iodine is essential for fetal neurodevelopment and remains worldwide the leading preventable cause of intellectual impairment[1].

Australia is known to have a mild iodine deficiency, varying by region[1].

In 2009, bread was fortified with iodine and pregnant women were advised to take iodine supplementation.

## Objectives

To assess iodine status and iodine supplement use amongst pregnant women in an urban hospital in Melbourne.

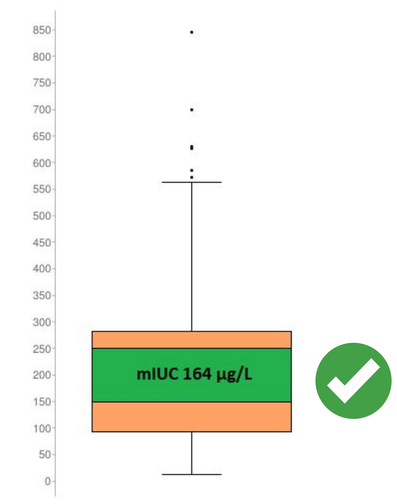
## Methodology

Convenience cross-sectional survey of women.

'Iodine status' was determined by measuring median urinary iodine concentration (mUIC). The World Health Organisation advises a minimum of 300 participants to accurately assess iodine status in a population[2]. A spot urine sample was obtained from each woman.

A questionnaire was provided to assess their supplement use.

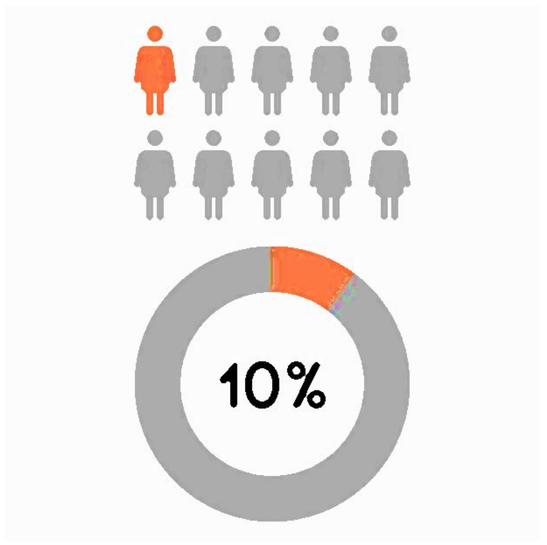
## Results




| Median (interquartile range) (µg/L) | 164 |
|---|---|

| Minimum-maximum (µg/L) | 13 - 845 |
|---|---|

| Urinary iodine concentration category | |
|---|---|
| *Inadequate (<150 µg/L)* | 140 |
| *Adequate (150-249 µg/L)* | 69 |
| *More than adequate (>250 µg/L)* | 84 |
| *Excessive (>500 µg/L)* | 12 |




1:10 women reported not to be taking an iodine-containing supplement

305 women participated in the study over a two-year period ending in 2018.

The mUIC was 164 µg/L (target 150-249 µg/L).

10% of participants had a mUIC less than 50µg/L (severely deficient).

91% of women (N=272) stated that they were taking a multivitamin supplement, but 47% (N=120) were not aware if it contained iodine. 2% (N=6) were taking a supplement without iodine or containing less than the required iodine dose. 15% of women (N=44) were advised to specifically take an iodine-containing supplement.

Twenty different multivitamin supplements were identified, with 2 supplements not having the required iodine dose.

## Discussion & Conclusion

Pregnant women attending an urban hospital in Melbourne were iodine-replete.

Approximately one in 10 women were not taking appropriate iodine-containing supplements in pregnancy.

Women may benefit from education on iodine supplementation in pregnancy.

*References*
*1. Pearce, E. N. (2015). Assessing iodine intakes in pregnancy: why does this matter? Br J Nutr . 2015 Apr 28;113(8):1179-81.*
*2. World Health Organization Nutrition Unit (1994). Indicators for assessing iodine deficiency disorders and their control through salt iodization. Document No. WHO/NUT/94.6. Geneva: WHO; 36.*

*Disclosure*
*Nil*