

# CLAHRC BITE **Brokering Innovation Through Evidence**

17 A bite-sized summary of a piece of research supported by NIHR CLAHRC West Midlands

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## Iodine supplementation is cost-saving for the health service and to society

### Background:

- Currently in the UK there is no national guidance or policy on iodine supplementation for pregnant women.
- Previous evidence shows that iodine deficiency can lead to impaired neurodevelopment of the unborn child, which may result in a permanent loss of IQ and/or reduced educational outcomes.
- Findings from a number of studies show that iodine supplementation during pregnancy can prevent cognitive impairment.
- Here we report the results of a model-based economic evaluation, using data from published literature and expert clinical input, to compare the costs and benefits of iodine supplementation for singleton pregnant women with a mild to moderate iodine deficiency versus 'standard care' (where no supplementation is given).

**Iodine supplementation in pregnancy saves money and improves IQ of unborn child**

## Findings:

- A decision-tree model was used to carry out two analyses of the costs and benefits from a health service perspective and a wider societal perspective.
- Conservative assumptions were used regarding potential benefits, and potentially overestimating adverse outcomes.
- Iodine supplementation was shown to be 'dominant' in both scenarios. This means iodine supplementation saved money and improved IQ when compared to standard care.
- The analysis from the health service perspective showed a cost saving of £199 per mother and an average gain of 1.22 IQ points for the child.
- The analysis from a wider societal perspective showed a cost saving of £4476 per mother and an average gain of 1.22 IQ points for the child.
- Sensitivity analysis supported the cost-saving indication of these results in all but the most extreme scenario, i.e. assuming no effect on the child's IQ for mothers who would be otherwise mild/moderately iodine deficient.

## Reference

Monahan M, Boelaert K, Jolly K, et al. Costs and benefits of iodine supplementation for pregnant women in a mildly to moderately iodine-deficient population: a modelling analysis. *Lancet Diabetes Endocrinol.* 2015; 3(9): 715-22.  
[\[goo.gl/pgnN5r\]](http://goo.gl/pgnN5r)



## Recommendations for Practice

Findings suggest that iodine supplementation could save money and improve IQ. Current evidence suggests that a policy to introduce iodine supplementation during pregnancy would be beneficial to both the health service and society.

### What is NIHR CLAHRC West Midlands?

The Collaborations for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between universities (Birmingham, Warwick and Keele) and a number of health and social care organisations in the West Midlands. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond.

For further information, visit:

[www.clahrc-wm.nihr.ac.uk](http://www.clahrc-wm.nihr.ac.uk)

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