To whom it may concern

## Re: Submission to the inquiry into the Health benefits of breastfeeding

It is well recognised that breastfeeding confers health benefits and breastfeeding should be strongly encouraged. However, the extent of these health benefits is less clear particularly in relation to breastfeeding and cognitive development in children.

The commonly observed association between breastfeeding and higher IQ in children can not be treated as causal because there are fundamental differences between mothers who choose to breastfeed and those who do not. Breastfeeding is closely associated with socio-economic advantage in industrialised countries, which in term influences child development. Therefore, studies that do not adequately control for socio-economic indicators may mistake residual confounding for a real effect of breastfeeding<sup>1</sup>.

We recently conducted a study to examine the effect of breastfeeding on IQ of preschool children<sup>2</sup>. We examined the relationship between the duration of breastfeeding and IQ of children, and compared IQ of children who were breastfed and formula-fed from a representative cohort of Adelaide children. We found that neither the mode of feeding (breast-fed or formula-fed) nor the duration of breastfeeding were related to IQ of children at 4 years of age when the quality of the home environment and socio-economic status of families were taken into account<sup>2</sup>. Our findings indicate that the quality of home environment not breastfeeding, predicts IQ of children.

Our findings are in agreement with evidence from other studies<sup>1, 3-5</sup> in developed countries that had adequately controlled for confounding factors including the home environment. The association of higher IQ with breastfeeding can be accounted for by social and environmental factors that are typically associated with the decision to breastfeed and to breastfeed for longer duration. The belief that breastfeeding leads to higher IQ in children is not substantiated based on quality evidence.

We strongly support promoting breastfeeding for established health benefits. We also believe that it is important to provide evidence based advice in relation to the health benefits of breastfeeding without biases or manipulation of information. Promotion of breastfeeding should be focused on the development of appropriate support for mothers to facilitate breastfeeding. Incorrect advice or overstating the benefits of breastfeeding may create unnecessary guilt and associated emotional burdens for mothers who are unable to breastfeed their children, which in term may have a potential adverse effect on the ability of mothers to provide the best care they can for their children.

We have included a couple of key references as appendices to support our submission.

Yours Sincerely

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## References

- 1. Der G, Batty GD, Deary IJ. Effect of breast feeding on intelligence in children: prospective study, sibling pairs analysis, and meta-analysis. *BMJ* 2006;333(7575):945 (see Appendix 1).
- 2. Zhou SJ, Baghurst P, Gibson RA, Makrides M. Home environment, not breastfeeding or formula feeding, predicts intelligence quotient of children at 4 years. *Nutrition* 2007;In press (see Appendix 2).
- 3. Jacobson SW, Chiodo LM, Jacobson JL. Breastfeeding effects on intelligence quotient in 4- and 11-year-old children. *Pediatrics* 1999;103(5):e71.
- 4. Gibson-Davis CM, Brooks-Gunn J. Breastfeeding and verbal ability of 3-year-olds in a multicity sample. *Pediatrics* 2006;118(5):e1444-51.
- 5. Wigg NR, Tong S, McMichael AJ, Baghurst PA, Vimpani G, Roberts R. Does breastfeeding at six months predict cognitive development? *Aust N Z J Public Health* 1998;22(2):232-6.