

Special Commission of Inquiry into Healthcare Funding

Submission Number: 61

Name: Maternity Consumer Network

Date Received: 30/10/2023



Submission to the NSW Special Commission of Inquiry into Healthcare Spending

Preamble

Maternity Consumer Network is a leading maternity consumer organisation in Australia, with over 1000 members and member organisations. We have been heavily involved in strategic direction and reforms in the maternity space; including working with the previous government to develop a Woman Centred Care Strategy, the Medicare Review of Participating Midwives, ANMAC Midwifery Standards, presenting to the Stillbirth Inquiry and providing evidence-based solutions to inform the National Stillbirth Strategy, and state-wide strategies for maternity including Queensland's Normal Birth Strategy, ACT's Public System Maternity Plan, and many other research projects.

This submission primarily relates to the Terms of Reference section H: New models of care and technical and clinical innovations to improve health outcomes for the people of NSW, including but not limited to technical and clinical innovation, changes to scope of practice, workforce innovation, and funding innovation.

Introduction

A healthy pregnancy and birth provide a foundation for mothers' and babies' future health and well-being. Close to 100,000 babies are born in NSW each year, around 1 in 3 of all babies born in Australia. Pregnancy and birth are the most common reasons for admission to hospital: In 2021-22, maternal care represented 10% of all overnight, and 3% of sameday, public hospital separations in NSW, and newborn care accounted for 4% of all admissions. Nationally, around 11% of public hospital spend is for maternal and newborn care.

Problem

However, maternity care in NSW, and the rest of Australia, is labouring under increasing medicalisation: we are unnecessarily intervening in healthy pregnancies and births at unprecedented rates. Less than 1 in 3 women (29%) had a spontaneous labour that was not artificially sped up, and only 1 in 2 (51%) had a normal vaginal birth (without forceps or vacuum extraction). Our caesarean section rate is increasing rapidly: it was 37.6% in 2021, an increase from 31.3% in 2011, both of which are well above the World Health Organization's recommendation of 10%. An increasing number of women are having a surgical cut to their perineum during a vaginal birth, 24% in 2021 (47% of first-time mothers), an increase from 20% in 2011.

Short-term costs

The physical health consequences of all this intervention are stark. In the short-term, there is a huge financial and opportunity cost when we do too much to women during birth. Induction of labour increases the time women are in hospital in labour, and increases the likelihood of her having a caesarean section. Women who undergo caesarean section require longer and more intensive nursing care in the immediate postpartum, increasing pressure on the postnatal ward. Operating theatres, and theatre staff, utilised for preventable caesarean sections prevent their use to provide other essential services to the community.

The additional costs of caesarean section are reflected in the 2021 AR-DRG costs, with a low-complexity vaginal birth (\$4,904) costing less than half of a low-complexity caesarean section (\$10,901) or instrumental extraction (\$10,375).² This large disparity in short-term cost demonstrates the importance of incentivising models of care to minimise the unnecessary use of caesarean section and instrumental extraction.

Babies born after induced labour or by caesarean section are more likely to need costly additional care after birth, further utilising staff and resources that could be used elsewhere. Over 1 in 5 (22%; 22,596 babies) of NSW newborns were admitted to special care or neonatal ICU in 2021, an expensive activity costing anywhere from \$4,000 to \$400,000 per admission.² Preventing the need for babies to be admitted could result in significant cost savings.

Long-term costs

The long-term health costs are large too. Babies born after induction of labour or after caesarean section have lifelong increased health risks: they are more vulnerable to infections, obesity, diabetes, asthma, allergy, atopy, early-onset colorectal cancer, autism, ADHD, and childhood mortality. Women who undergo caesarean section experience an increased risk of pelvic adhesions, small bowel obstruction, menorrhagia, dysmenorrhoea, abdominal pain, sexual dysfunction, subfertility, and endometriosis. In subsequent pregnancies, they experience an increased risk of uterine rupture and abnormal placentation, which causes an increased risk of bleeding, hysterectomy, stillbirth, and preterm birth. Most undergo a repeat caesarean section, which increases in surgical complexity and risk with increasing numbers of prior caesareans.

Reducing induction of labour and caesarean section thus represents a huge opportunity to improve short- and long-term health while also reducing costs.

Causes

Increases in induction and caesarean rates are driven by increasingly medicalised obstetric guidelines, where the indications for using them are expanding over time. For example, recent increases in the episiotomy rate¹ (a surgical cut to enlarge the vagina) are driven by recommendations in the "Perineal Bundle", which were introduced without supporting evidence – and have not achieved the stated goal of reducing severe perineal trauma.¹⁸ This is a common theme where only 9-12% of global obstetric guidelines, upon which Australian guidelines appear to be based, are underpinned by scientific evidence.¹⁹

Further, Australia's, and NSW' maternity care guidelines are written in ways that do not support informed consent, by using of wording such as "require" or "commence" (as opposed to "recommend" or "offer". Some encourage racial profiling, in particular recommending early induction of labour for women of South Asian descent, even where they have a healthy pregnancy. While there is some evidence that these women have higher stillbirth rates, it is inappropriate to recommend additional procedures which may cause harm, instead of finding and addressing the root cause.

Some hospitals penalise clinicians for not following guidelines, incentivising them to perform procedures without gaining women's consent. Activity-based funding also incentivises over-servicing of certain procedures, for example additional caesarean sections could be performed to reduce pressure on a labour ward, or for scheduling reasons, knowing that the additional costs incurred will be reimbursed. This practice may be difficult to detect, as caesarean rates, and indications for caesarean, are inconsistently used. Activity-based funding also incentivises over-servicing of certain procedures, for example additional caesarean sections could be performed to reduce pressure on a labour ward, or for scheduling reasons, knowing that the additional costs incurred will be reimbursed. This practice may be difficult to detect, as

Clinical practice driven by inappropriate clinical guidelines, and inappropriate financial incentives not only promotes over-servicing, but it also results in preventable trauma for women. Increasing intervention is associated with poorer postpartum mental health, including postnatal anxiety, depression, and post-traumatic stress disorder, particularly where informed consent is not sought. ²⁶⁻²⁹ This is a large problem, with around 1 in 3 women experiencing birth trauma, ²⁹ and as demonstrated by the very high volume - over 4000 - submissions to the recent NSW Select Committee on Birth Trauma. ³⁰ The extent of costs to the health system in NSW caused by preventable psychological birth trauma is unknown, however postnatal depression and anxiety alone is estimated to cost Australia \$83M in healthcare costs annually. ³¹

Solutions

Midwifery Continuity of Carer (MGP)

There is abundant research that shows that midwives are the key to turning the tide on rising birth interventions. Midwifery continuity of carer - implemented as Midwifery Group Practice (MGP) in Australia - has been shown to reduce costs and improve outcomes in women of all risk categories.³² Further, it has been shown to prevent stillbirth and preterm birth, increase breastfeeding rates, and increase women's satisfaction with their care.^{33,34} Despite being considered the "gold standard" of maternity care internationally, MGP represents only 11% of models in NSW, with an unreported proportion of women able to access them.³⁵

MGP is a core component of Birthing on Country programs, which are leading the way in providing culturally-appropriate care for Aboriginal and Torres Strait Islander women. They have been found to halve preterm birth, an important goal of the national Closing the Gap agreement.³⁶

Further, MGP is more cost-effective than standard care: in addition to improving health outcomes, it has been shown to save \$655 per mother (all-risk), which would result in a total saving of \$64M per year in NSW if extended to all mothers. This makes it an ideal target for service improvement.³⁷

Recommendations:

- Commit to expand access to publicly funded MGP services to 75% of all service users by 2030.
- Commit to funding and expanding Birthing on Country programs in NSW, including ongoing funding for the Waminda Indigenous birth centre.

Out-of-hospital birth

Out-of-hospital birth is also a feasible option that reduces costs and improves outcomes: compared to hospital birth, women planning to give birth at home with a midwife in attendance are 6 times more likely to have a normal labour and birth, with no change in baby outcomes, regardless of where they give birth. Birth centres similarly increase the odds of normal labour and birth over hospital birth by 3 times.³⁸

A recent study in Queensland found that increasing the number of publicly-funded home births to 5% (1816 births) of all low-risk mothers would save public hospital funders \$5M, a large saving driven primarily by a reduction in caesarean section; a similar result would be expected in NSW.³⁹ There are six existing publicly funded home birth programs in NSW, servicing 0.3% of total births.^{1,40} These services have excellent outcomes, and could be used as a model to open more home birth programs across the state.

Recommendations:

 Commit to expanding publicly funded home birth programs to cover 5% of lowrisk births by 2030.

Vaginal birth after caesarean (VBAC)

The current high caesarean rate means that many women are going into subsequent pregnancies and births with a history of caesarean. Planned vaginal birth after caesarean (VBAC) is associated with better health outcomes and lower healthcare costs than planned repeat caesarean rate. International studies have repeatedly found planned VBAC to be more cost-effective than repeat caesarean. 41-43;

Women who plan a VBAC have similar vaginal birth rates to the general population, however only 13% of NSW women with a history of caesarean have a vaginal birth.¹ This is because many hospital policies and obstetricians do not support VBAC, against RANZCOG and NSW health guidelines. Current guidelines recommend that women be offered access to VBAC services,⁴⁴ however the low vaginal birth rate suggests that clinicians are not routinely recommending or supporting VBAC.

Recommendations:

 All services should commit to supporting and recommending vaginal birth to women with a history of caesarean section.

Bundled funding

Bundled funding for healthcare is a payment model where a single payment is made to a provider or group of providers to cover all the costs of a specific episode of care. For maternity care, this would include all services provided, regardless of the setting, including antenatal care, the birth episode, and postpartum care. Bundled funding is designed to encourage providers to coordinate care and improve patient outcomes, while also reducing costs. Bundled pricing for maternity care could incentivise increased focus on preventative care that reduces the complexity of the birth, and/or could drive greater standardisation of antenatal or intrapartum care delivery. It also removes the incentive to increase caesarean section and induction of labour rates for scheduling and convenience reasons. A bundle that divides payments for antenatal, intrapartum, and postnatal care could improve funds distribution where rural/remote women receive antenatal/postnatal care in a level 1 service but birth elsewhere; currently the bulk of the funding goes to the service providing intrapartum care.

Recommendations:

 Implement bundled funding for maternity care, as recommended by IHPA in 2016⁴⁵

Evidence-based guidelines

The above-described problems in maternity guidelines can be averted through clear, woman-centred, and holistic guidelines that advocate for international best-practice in maternity care. They should be developed with consideration for the long-term health of women and babies, including where the consequences of an action would increase or decrease the use of other actions (e.g. induction of labour increases the chance of caesarean section). These guidelines should also include recommendations for non-pharmaceutical support for labouring women that improve outcomes (e.g. encouraging the use of water immersion and upright positioning).

Recommendations:

- Review all LHD guidelines to ensure that they:
 - follow international best evidence;
 - discourage provision of low-value care;
 - promote women's informed consent;
 - do not racially profile women.

Summary of recommendations

- Commit to expand access to publicly funded MGP services to 75% of all service users by 2030.
- Commit to funding and expanding Birthing on Country programs in NSW, including ongoing funding for the Waminda Indigenous birth centre.
- Commit to expanding publicly funded home birth programs to cover 5% of low-risk births by 2030.
- All services should commit to supporting and recommending vaginal birth to women with a history of caesarean section.

- Implement bundled funding for maternity care, as recommended by IHPA in 2016
- Review all LHD guidelines to ensure that they:
 - follow international best evidence;
 - discourage provision of low-value care;
 - o promote women's informed consent;
 - do not racially profile women.

References

- 1. Australian Institute of Health and Welfare. Australia's mothers and babies [internet]. 2023 [cited 2023 Oct 30]. Available from: https://www.aihw.gov.au/reports/mothers-babies/contents/about.
- 2. Australian Institute of Health and Welfare. Health expenditure Australia 2020-21 [internet]. 2022 [cited 2023 Oct 30]. Available from: https://www.aihw.gov.au/reports/health-welfare-expenditure/health-expenditure-australia-2020-21/contents/about.
- 3. Australian Institute of Health and Welfare. Disease expenditure in Australia 2019–20 [internet]. 2022 [cited 2023 Oct 30]. Available from: https://www.aihw.gov.au/reports/health-welfare-expenditure/disease-expenditure-in-australia-2019-20/contents/summary.
- 4. Betran AP, Torloni MR, Zhang JJ, Gülmezoglu AM, the WHOWGoCS. WHO Statement on Caesarean Section Rates. BJOG: An International Journal of Obstetrics & Gynaecology. 2016;123(5):667-70. doi:https://doi.org/10.1111/1471-0528.13526.
- 5. Ye J, Zhang J, Mikolajczyk R, Torloni MR, Gülmezoglu AM, Betran AP. Association between rates of caesarean section and maternal and neonatal mortality in the 21st century: a worldwide population-based ecological study with longitudinal data. BJOG: An International Journal of Obstetrics & Gynaecology. 2016;123(5):745-53. doi:https://doi.org/10.1111/1471-0528.13592.
- 6. Østborg TB, Romundstad PR, Eggebø TM. Duration of the active phase of labor in spontaneous and induced labors. Acta Obstetricia et Gynecologica Scandinavica. 2017;96(1):120-7. doi:https://doi.org/10.1111/aogs.13039.
- 7. Independent Health and Aged Care Pricing Authority. National Hospital Cost Data Collection (NHCDC) Public Sector 2021–22. 2022 [cited 2023 Oct 30]. 44 p. Available from: https://www.ihacpa.gov.au/resources/national-hospital-cost-data-collection-nhcdc-public-sector-2021-22
- 8. Sandall J, Tribe RM, Avery L, Mola G, Visser GHA, Homer CSE, et al. Short-term and long-term effects of caesarean section on the health of women and children. Lancet. 2018;392(10155):1349-57. doi:10.1016/S0140-6736(18)31930-5.
- 9. Paixao ES, Bottomley C, Pescarini JM, Wong KLM, Cardim LL, Ribeiro Silva RdC, et al. Associations between cesarean delivery and child mortality: A national record linkage longitudinal study of 17.8 million births in Brazil. PLoS Med. 2021;18(10):e1003791-e. doi:10.1371/journal.pmed.1003791.
- 10. Begum T, Fatima Y, Perales F, Anuradha S, Mamun A. Associations of caesarean section with body mass and waist circumference trajectories from age 2 to 13 years: A nationally representative birth cohort study in Australia. Pediatric Obesity. 2021;16(7):e12769. doi:https://doi.org/10.1111/jipo.12769.
- 11. Cao Y, Nguyen LH, Tica S, Otegbeye E, Zong X, Roelstraete B, et al. Evaluation of Birth by Cesarean Delivery and Development of Early-Onset Colorectal Cancer. JAMA Network Open. 2023;6(4):e2310316-e. doi:10.1001/jamanetworkopen.2023.10316.
- 12. Keag OE, Norman JE, Stock SJ. Long-term risks and benefits associated with cesarean delivery for mother, baby, and subsequent pregnancies: Systematic review and meta-analysis. PLoS medicine. 2018;15(1):e1002494.
- 13. Larsson C, Djuvfelt E, Lindam A, Tunón K, Nordin P. Surgical complications after caesarean section: A population-based cohort study. Plos one. 2021;16(10):e0258222.

31 October 2023

- 14. Abenhaim HA, Tulandi T, Wilchesky M, Platt R, Spence AR, Czuzoj-Shulman N, et al. Effect of Cesarean Delivery on Long-term Risk of Small Bowel Obstruction. Obstetrics & Gynecology. 2018;131(2).
- 15. Andolf E, Thorsell M, Källén K. Caesarean section and risk for endometriosis: a prospective cohort study of Swedish registries. BJOG: An International Journal of Obstetrics & Gynaecology. 2013;120(9):1061-5. doi:https://doi.org/10.1111/1471-0528.12236.
- 16. Neamtu R, Dahma G, Mocanu AG, Bernad E, Silaghi C-I, Stelea L, et al. Challenges in Diagnosis and Prevention of latrogenic Endometriosis as a Long-Term Surgical Complication after C-Section. International Journal of Environmental Research and Public Health [Internet]. 2022; 19(5).
- 17. Silver RM, Landon MB, Rouse DJ, Leveno KJ, Spong CY, Thom EA, et al. Maternal Morbidity Associated With Multiple Repeat Cesarean Deliveries. Obstetrics & Gynecology. 2006;107(6).
- 18. Barnett B, Jenkinson B, Lee N. The impact of a perineal care bundle on women's birth experiences in Queensland, Australia: A qualitative thematic analysis. Women and Birth. 2023;36(3):271-80. doi:https://doi.org/10.1016/j.wombi.2022.09.002.
- 19. Prusova K, Churcher L, Tyler A, Lokugamage AU. Royal College of Obstetricians and Gynaecologists guidelines: How evidence-based are they? Journal of Obstetrics and Gynaecology. 2014;34(8):706-11. doi:10.3109/01443615.2014.920794.
- 20. Health N. Maternity Fetal heart rate monitoring. 2018 [cited 2023 Oct 30]. 30 p. Available from: https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2018 025.pdf
- 21. South Eastern Sydney Local Health District. Second stage of labour recognition of normal progress and management of delay. 2020 [cited 2023 Oct 30]. 5 p. Available from: https://www.seslhd.health.nsw.gov.au/sites/default/files/documents/secondstage2020.pdf
- 22. Maternity Consumer Network. We were sent some Guidelines from Sydney LHD (local health district) around Induction of Labour. [internet]. 2023 [cited 2023 Oct 30]. Available from:
- https://www.facebook.com/maternityconsumernetwork/posts/pfbid02FQNg9QTU8iJV8BNVXQvyUiaVYfQbFFKMoSyLeRMmMC7d7iDQx9t1FYZBCZ9Vg8yRI.
- 23. Drysdale H, Ranasinha S, Kendall A, Knight M, Wallace EM. Ethnicity and the risk of late-pregnancy stillbirth. Med J Aust. 2012;197(5):278-81. doi:10.5694/mja12.10125.
- 24. Schemann K, Patterson JA, Nippita TA, Ford JB, Roberts CL. Variation in hospital caesarean section rates for women with at least one previous caesarean section: a population based cohort study. BMC Pregnancy Childbirth. 2015;15:179. doi:10.1186/s12884-015-0609-x.
- 25. Fox H, Callander E, Lindsay D, Topp S. Evidence of overuse? Patterns of obstetric interventions during labour and birth among Australian mothers. BMC Pregnancy Childbirth. 2019;19(1):226. doi:10.1186/s12884-019-2369-5.
- 26. Townsend M, Brassel A, Baafi M, Grenyer B. Childbirth satisfaction and perceptions of control: postnatal psychological implications. British Journal of Midwifery. 2020;28(4):225-33. doi:10.12968/bjom.2020.28.4.225.
- 27. Simpson M, Schmied V, Dickson C, Dahlen H. Postnatal post-traumatic stress: An integrative review. Women Birth. 2018;31(5):367-79. doi:10.1016/j.wombi.2017.12.003.
- 28. Jenkinson B, Kruske S, Kildea S. The experiences of women, midwives and obstetricians when women decline recommended maternity care: A feminist thematic analysis. Midwifery. 2017;52:1-10. doi:10.1016/j.midw.2017.05.006.
- 29. Keedle H, Keedle W, Dahlen HG. Dehumanized, Violated, and Powerless: An Australian Survey of Women's Experiences of Obstetric Violence in the Past 5 Years. Violence Against Women. 2022:10778012221140138. doi:10.1177/10778012221140138.
- 30. Parliament of New South Wales. Select Committee on Birth Trauma [internet]. 2023 [cited 2023 Oct 30]. Available from:

https://www.parliament.nsw.gov.au/committees/listofcommittees/Pages/committeedetails.aspx?pk=318.

- 31. Gidget Foundation. The cost of perinatal depression and anxiety in Australia. 2019 [cited p. Available from: https://gidgetfoundation.org.au/wp-content/uploads/2019/11/Cost-of-PNDA-in-Australia -Final-Report.pdf
- 32. Steel A, Adams J, Frawley J, Wardle J, Broom A, Sidebotham M, et al. Does Australia's Health Policy Environment Create Unintended Outcomes for Birthing Women? Birth. 2016;43(4):273-6. doi:10.1111/birt.12251.
- 33. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. Cochrane Database Syst Rev. 2016;4:Cd004667. doi:10.1002/14651858.CD004667.pub5.
- 34. Forster D, McLachlan H, Davey M, Biro MA, Farrell T, Gold L, et al. Continuity of care by a primary midwife (caseload midwifery) increases women's satisfaction with antenatal, intrapartum and postpartum care: results from the COSMOS randomised controlled trial. BMC Pregnancy and Childbirth. 2016;16(1):28. doi:10.1186/s12884-016-0798-y.
- 35. Australian Institute of Health and Welfare. Major model category
 Maternity models of care in Australia, 2023 [internet]. 2023 [cited 2023 Oct 30]. Available from: https://www.aihw.gov.au/reports/mothers-babies/maternity-models-of-care-look-like/major-model-category.
- 36. Kildea S, Gao Y, Hickey S, Nelson C, Kruske S, Carson A, et al. Effect of a Birthing on Country service redesign on maternal and neonatal health outcomes for First Nations Australians: a prospective, non-randomised, interventional trial. The Lancet Global Health. 2021;9(5):e651-e9. doi:https://doi.org/10.1016/S2214-109X(21)00061-9.
- 37. Tracy S, Hartz D, Tracy M, Allen J, Forti A, Hall B, et al. Caseload midwifery care versus standard maternity care for women of any risk: M@NGO, a randomised controlled trial. Lancet. 2013;382(9906):1723-32. doi:10.1016/S0140-6736(13)61406-3.
- 38. Homer CSE, Cheah SL, Rossiter C, Dahlen HG, Ellwood D, Foureur MJ, et al. Maternal and perinatal outcomes by planned place of birth in Australia 2000 2012: a linked population data study. BMJ Open. 2019;9(10):e029192. doi:10.1136/bmjopen-2019-029192.
- 39. Hu Y, Allen J, Ellwood D, Slavin V, Gamble J, Toohill J, et al. The financial impact of offering publicly funded homebirths: A population-based microsimulation in Queensland, Australia. Women Birth. 2023. doi:10.1016/j.wombi.2023.07.129.
- 40. Pregnancy Birth & Beyond. Publicly Funded Homebirth [internet]. 2011 [updated 2020 Mar 26; cited 2023 Oct 30]. Available from: https://www.pregnancy.com.au/birth/homebirth/publicly-funded-homebirth/.
- 41. Gilbert SA, Grobman WA, Landon MB, Varner MW, Wapner RJ, Sorokin Y, et al. Lifetime Cost-Effectiveness of Trial of Labor After Cesarean in the United States. Value in Health. 2013;16(6):953-64. doi:https://doi.org/10.1016/j.jval.2013.06.014.
- 42. Wymer KM, Shih YC, Plunkett BA. The cost-effectiveness of a trial of labor accrues with multiple subsequent vaginal deliveries. Am J Obstet Gynecol. 2014;211(1):56.e1-.e12. doi:10.1016/j.ajog.2014.01.033.
- 43. Fobelets M, Beeckman K, Faron G, Daly D, Begley C, Putman K. Vaginal birth after caesarean versus elective repeat caesarean delivery after one previous caesarean section: a cost-effectiveness analysis in four European countries. BMC Pregnancy and Childbirth. 2018;18(1):92. doi:10.1186/s12884-018-1720-6.
- 44. NSW Health. Maternity Supporting Women in their Next Birth After Caesarean Section (NBAC). 2014 [cited 2023 Oct 30]. 23 p. Available from: https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=GL2014 004
- 45. Independent Health and Aged Care Pricing Authority. Bundled pricing for maternity care. 2017 [cited 2023 Oct 30]. 52 p. Available from: https://www.ihacpa.gov.au/resources/bundled-pricing-maternity-care

31 October 2023