

THE CASE FOR HOMEBIRTH: IS HOMEBIRTH AN ECONOMICALLY VIABLE BIRTH OPTION FOR AUSTRALIAN WOMEN?

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ABSTRACT

BACKGROUND:

As time progresses, less women are giving birth naturally. While some surgical and assisted births are necessary, and some are elected by the mother, many are due to unnecessary and undesired hospital interventions. We theorise that homebirth can provide not only an optimal environment for birth to unfold naturally, but can also reduce financial investments of women, healthcare services and government, when made more accessible. Our aim was to summarise the impacts of birth interventions on women, and determine the financial costs associated with antenatal, intrapartum and postnatal care when provided by different care providers under different settings.

METHODS:

Information about intervention rates, health risks and some financial costs were obtained through a review of the available scientific literature.

RESULTS:

By combining datasets from recent research, we were able to calculate the costs of different interventions for women and the public purse, and obtain an overall estimate of the cost-savings (i.e. \$390,508,568 savings to public purse) that could be made by redirecting a substantial percentage of the population of birthing women to birth at home, rather than in a hospital set-

CONCLUSION:

We propose that with an increase in the financial support provided for homebirth through Medicare rebate, there is the potential for large economic savings for women, healthcare services and the government. This would occur via redirecting some of the patient load into private care whilst also reducing the likelihood of unnecessary (and financially costly) birth interventions which hold the potential for ongoing financial costs through the access of mental health services, urogynaecological services, physiotherapists and other ongoing care requirements.

INTRODUCTION

Normal birth is defined as giving birth without interventions such as an epidural, spinal analgesia, forceps, vacuum extraction, caesarean section, episiotomy, induction, augmentation or caesarean section (Homer et al., 2019, Reitsma et al., 2020). While around 66% of births in Australia occur vaginally, 19% are instrumental (forceps and vacuum extraction), 22% include an episiotomy, 36% involve the use of regional analgesia (epidural or spinal), 31% are induced and a further 31% are augmented with synthetic hormones during labour (Australia's mothers and babies report, 2016). Even if a woman has laboured and birthed her baby without intervention, the birth of the placenta (third stage) is almost always achieved after an injection of Syntocinon, a synthetic hormone used to augment labour which has recently been linked with perinatal depression and anxiety (Kroll-Desrosiers et al., 2017). While it is difficult to tease out the rate of 'normal birth' from these statistics, published estimates vary from ~1-10% of Australian births. Normal childbirth provides an optimal start for the mother-baby dyad and consequently supporting normal birth can have far-reaching effects on health and wellness of mother and baby (Kroll-Desrosiers et al., 2017; Peters et al., 2017), and also potentially holds large economic impacts for healthcare services and consequently the government.

The promotion and support of normal birth and consequently safety for mothers and babies occurs most when the woman is cared for continuously by a known midwife (Sandall et al., 2016). While some hospitals offer caseload programs, where women are under the care of a team of midwives, the truest form of continuity of care is afforded through the provision of Homebirth services, particularly those services provided by a Privately Practising Midwife (PPM). Furthermore, the access to commonly used and often unnecessary hospital interventions is limited in a homebirth, thus further promoting the option of normal birth (Homer et al., 2019; Reitsma et al., 2020). Accordingly, homebirth results in significantly higher rates of normal vaginal birth, lower rates of intervention, severe perineal trauma and haemorrhage, and no difference in infant mortality, when compared to birth in other settings (Scarf et al., 2018; Homer et al., 2019; Reitsma et al., 2020). However, homebirth is currently the least accessible birth option in Australia, accessed by only 0.3% of women; that's less than the 0.4% of women who birth before arriving at a hospital or birth centre (Australia's mothers and babies report, 2016).

In Australia, Homebirth is only accessible via few publicly funded (and severely restrictive) homebirth programs or through significant financial investment by the mother to employ two PPMs (as required by the NMBA guidelines), of which there are few. The Australian government has neglected to fund homebirths through the Medicare system despite multiple campaigns and petitions requesting this, and only small rebates exist for antenatal and postnatal care (Medicare, 2019). While publicly funded homebirth (PFHB) programs do exist, these are few (16 in Australia) and far between (none in Queensland or Tasmania). Additionally, PFHB programs are typically not well publicised, are restrictive and inconsistent in their entry criteria based on the mother's location, birth history and pregnancy testing, much of which mothers are unable to opt out of, and provide instability in care, with women often reporting that they have been 'kicked off' the PFHB program due to changes in their care or care provider.

This study aims to identify intervention rates and summarise the financial costs of pregnancy, birth and postnatal care undertaken with different care providers in different settings.

METHODS

An initial search into academic journals yielded some information about birth interventions and the effects that these can have on babies, but less information on the effects endured by women and the long-term effects and financial implications these interventions, different models of care and different birth settings hold for women, families, communities, healthcare services and the government. Accordingly, government websites related to Australian based health care (e.g. Medicare), maternity care, pregnancy and postpartum were relied on for sourcing the majority of this information. Even so, there was a limited amount of accessible information regarding the costs of birth, particularly compared in different settings, and thus some investigative research was undertaken by contacting a local hospital (Bankstown Hospital) and speaking with women who had recently birthed within the different systems.

RESULTS & DISCUSSIONS

ACCESSIBILITY TO HOMEBIRTH SERVICES

Unfortunately, homebirth is typically limited in accessibility, being a valid option only for those who live near enough to, and fit the exclusion criteria of, Publicly Funded Homebirth Programs, or who have the financial capacity and access to employ a Privately Practising Midwife (PPM). Homebirth with a PPM is further restricted for many women because of Medicare and Professional Indemnity Insurance issues encountered by PPMs.

MEDICARE

There are a number of issues regarding access to homebirth, particularly surrounding the support to, and eligibility of, midwives in private practice. An eligible midwife is a qualified midwife who meets the requirements of the NMBA and renders a Medicare rebatable service in collaboration with a GP, health-care service or healthcare practitioner. Eligible midwives are required to be registered with the Australian Health Practitioners Regulation Agency (AHPRA), have the equivalent of three years full time post-registration experience as a midwife, demonstrate continued competence in the provision of pregnancy, labour, birth and postnatal care to women and infants, and have successfully completed the appropriate programs' of study. While an eligible midwife can provide Medicare rebatable antenatal and postnatal care, there is not yet an item number provided for intrapartum care, meaning that this part of a woman's care (the most costly in terms of invoicing) is non-rebatable. In this way, homebirth is only accessible by women who have the financial means to pay for a PPM, unless they are able to obtain access to a PFHB program.

PROFESSIONAL INDEMNITY INSURANCE

All healthcare providers are required to hold professional indemnity insurance in order to provide healthcare services (Health Practitioner Regulation national law NSW – section 129). No insurer has provided a PII product for PPMs for many years, and thus PPMs and homebirth with a PPM was set to become illegal. Due to substantial lobbying and campaigning, an exemption was provided for PPMs so that they did not have to hold PII to attend homebirths, but this exemption has never been followed up with an appropriate solution. The exemption has lapsed and been reinstated after public outrage several times, yet Australia's PPMs remain uninsured today, with the newly reinstated exemption set to lapse on 31st December, 2021. Multiple politicians have said they are committed to finding a solution to this issue, but as yet, none has been provided. While the homebirth community was relieved that the exemption was extended, so that homebirth with a PPM could remain a valid birthing option in Australia, PPMs still remain uninsured which puts themselves, their businesses and their families at risk.

INTERVENTIONS

Rates of intervention differ between women, care providers and birth settings (Scarf et al., 2018; Homer et al., 2019), not only during birth, but antenatally and postnatally too. Given all interventions hold risk, it is imperative that the mother is at the centre of her care choices, choosing which interventions she undergoes to ensure the optimum health and well-being of herself and her baby, regardless of care provider and setting. Homebirth is one model of care that can provide full autonomy and control to the woman throughout her antenatal, intrapartum and postnatal care without compromising safety for the baby, and increasing the chances of normal birth for the mother (Scarf et al., 2018; Homer et al., 2017; Homer et al., 2019)

INDUCTION/AUGMENTATION

Induction refers to the artificial commencement of labour, while augmentation is the artificial speeding up of labour. Common reasons for induction include the pregnancy going past the due date, pre-term or pre-labour rupture of the membranes, and concerns about the health of the baby or mother (Smith, Armour and Dahlen, 2017), though there is speculation that induction is often undertaken for the convenience of clinicians, the woman and/or her family. Augmentation typically occurs when labour has slowed due to inefficient or poor uterine contractions (WHO, 2014). Induction and augmentation of labour in Australia is typically undertaken using Syntocinon, though the use of this drug holds risks for both mother and baby (Boie et al., 2018) and has been linked with perinatal anxiety and depression (Kroll-Desrosiers et al., 2017; Peters et al., 2017). In Australia, labour is induced in 31% of mothers, and augmentation after spontaneous labour onset occurs in a further 31% of mothers (Australia's mothers and babies report, 2016). Accordingly, ~62% of mothers receive Syntocinon prior to or during their labour, with even more women receiving Syntocinon for the management of the third stage of labour (estimates suggest around 95-99% of all births). Given the administration of synthetic Oxytocin during the peripartum stage increases the risk of postpartum depressive and anxiety disorders by 32-36% (Kroll-Desrosiers et al., 2017), and holds additional risks for mothers and babies (Boie et al., 2018), it is imperative that induction of labour only occurs when absolutely medically necessary. During a homebirth, Syntocinon is unavailable for the induction or augmentation of labour, and is only kept on hand for the management of third stage should that be medically necessary, thus reducing the risk of this intervention in the homebirth setting. A recent study reported that while 16.5% of low-risk mothers received augmentation during their planned hospital births, only 3.4% received it when planning a homebirth (Homer et al., 2019).

CAESAREAN SECTION

Caesarean section rates are on the rise in Australia, currently sitting at 34% (Australia's mothers and babies report, 2016) which is significantly higher than that of the OECD average (OECD, 2015) and the World Health Organisation's recommendation of 10-15% (WHO, 2015). Many caesareans are scheduled, 'elective' caesareans due to a previous caesarean (ACSQHC, 2014) or for non-medical purposes, while many others occur because of the 'cascade of interventions' where a woman has one intervention leading to another and so on, ending in caesarean section. Despite the continuous rise in interventions, particularly caesarean sections, over the past decade, the rates of perinatal death have not declined (WHO, 2015), though there has been an associated increase in adverse outcomes for long-term childhood illnesses (Peters et al., 2018). This increase in long-term childhood illnesses further burdens our healthcare system, leading to more financial effects and economic disadvantages. The rates of caesarean section are significantly lower in planned home vs. hospital births, being 2.4% vs. 7.8% in low-risk, Australian women (Homer et al., 2019).

INSTRUMENTAL DELIVERY

Instrumental delivery refers to the use of instruments such as forceps and ventouse to assist a woman to give birth vaginally. There are several reasons forceps or ventouse may be used, but the main ones are concerns about baby's wellbeing during the birth, baby does not descend as expected or the mother has been instructed not to, or cannot, push during the second stage of labour (RCOG, 2012). Instrumental birth holds risks for both mother and baby. In the baby, these risks typically include bruising, cuts or cephalohematoma and associated jaundice, though rarely it can also result in spinal injury, skull fracture, haemorrhage and facial nerve palsy (RANZCOG, 2016). In the mother, risks include excessive bleeding, postpartum haemorrhage, severe perineal trauma (4% for ventouse, 8-12% for forceps), urinary tract, pelvic floor and anal sphincter injury (RANZCOG, 2016). In Australia, ~11% of births occur with ventouse assistance and 8% with forceps assistance (Australia's mothers and babies report, 2016). Instrumental delivery results in severe perineal trauma in 7.2% of cases (Australia's mothers and babies report, 2016) which holds significant implications for postnatal maternal health and well-being physically and psychologically. Low-risk, Australian women planning a homebirth have significantly lower rates of forceps and ventouse usage compared to those planning a hospital birth (Homer et al., 2019).

Episiotomy involves the cutting of a woman's vagina to aid in vaginal delivery, with the main aim of preventing rupture of perineal and vaginal tissues (i.e. tearing). While episiotomy can assist in the delivery of the baby in difficult situations, ~22% of births in Australia involve an episiotomy (Australia's mothers and babies report, 2016), and in many instances (26%) women report neither being informed nor consulted about the procedure (Thompson and Miller, 2014). The likelihood of receiving an episiotomy is higher in planned hospital and birth centre births compared to planned homebirths (Scarf et al., 2018, Homer et al., 2019). Episiotomy can hold significant implications for women with regards to postpartum healing, wound infection and long-term mental health.

INFORMED CONSENT

One of the main reasons many women choose to birth outside the system, at home, is to maintain bodily autonomy and a sense of control (Jackson et al. (2020), Dahlen and Schmied, 2012). Indeed, studies suggest that in many instances in the hospital setting, women are not consulted or informed about differing procedures they are being offered or exposed to, with somewhere between 2% (for epidural analgesia) and 34% (for episiotomy) reporting that they were not consulted about the procedure they experienced (Thompson and Miller, 2014). The lack of consent afforded to women at any time of their life, but particularly in such a vulnerable time as giving birth, holds the potential for severe, long-lasting implications regarding the woman's mental health. Indeed, women's experiences of birth trauma are known to result in mental health issues including post-traumatic stress disorder (PTSD) and postnatal depression/anxiety (White et al., 2006; Beck, 2004).

MENTAL HEALTH

Besides immediate risks of interventions to mother and baby, there are potentially long-term risks posed to the mother's mental health, which hold the potential for increased financial costs. McCauley et al. (2011) explains, "[p]re-existing mental illness, a history of significant life events such as physical or sexual abuse, experience of postnatal depression (PND), or issues relating to grief and loss may all place women at risk of antenatal depression and/or PND... The process of childbirth itself involves many psychological and emotional changes that may influence existing mental health problems to relapse or recur, including psychotic symptoms..." Studies suggest that the occurrence of birth complications increases the odds of a woman developing PND by 174% compared to having no complications (Myers and Johns, 2019). In homebirth situations, women are less likely to have medical interventions and overall, less likely to have labour complications (McIntyre and Boxell, 2012), which supports homebirth as a potential method for reducing postnatal mental health complications. Besides important individual and familial effects, the reduction of mental health disorders also alleviates the financial load encountered by healthcare services and government. On average, 1/3 of Australian women leave their births with some sort of birth trauma, and 1/10 have resultant post-traumatic stress disorder (Simpson et al., 2018). It is imperative that women feel autonomous and are in control of interventions that occur during their pregnancy, birth and postnatal periods, not only to themselves, but also to their babies.

COSTS

FINANCIAL IMPACTS ON WOMEN

While there seems to be minimal literature providing insight into the costs that women encounter when giving birth, the department of social services, overseen by the Australian Government, has funded a website that provides cost comparisons of public/private hospitals, birth centres and homebirths. This website, Birth Choices Raising Children Network, compares the costs associated with differing birth locations. They describe the associated costs as being the least expensive and mostly Medicare covered for birth in a public hospital, birth centre or Publicly Funded Homebirth (PFHB) program followed by birth in homebirth with a Privately Practising Midwife, or a private hospital birth with a private obstetrician (Table 1). These results suggest that while homebirth costs the individual woman substantially more than a public hospital birth, it is typically comparable to birth with a private obstetrician in a private hospital (Table 1). However, it is important to acknowledge that the number of interventions received tends to increase in a hospital setting when compared to a birth centre or at home (Scarf et al., 2018, Homer et al., 2019; Reitsma et al. 2020). Accordingly, the costs of birth for the woman choosing to birth in a private hospital with a private obstetrician, and the costs to the public purse for all other birth options, tends to increase when women choose to birth through either private or public hospital systems (Tracy and Tracy, 2003).

| Birth location | Cost of antenatal, birth and postnatal care | Notes |
|-----------------------------|---|---|
| Hospital (public) | \$0 - \$1,500 | Medicare covered |
| Hospital (private) | \$2,500 - \$30,000 | \$2,500 - \$20,000 if you have private health insurance, \$9,000 - \$30,000 without. Cost varies dependent on the care needs of mother and baby |
| Birth Centre | \$0 - \$1,500 | Medicare covered |
| Homebirth (publicly funded) | \$0 - \$1,500 | Medicare covered |
| Homebirth (PPM) | \$3,500 - \$6,000 | Medicare rebates for antenatal/postnatal care only, no intrapartum Medicare item number |

Table 1: The costs of pregnancy, birth and postnatal care encountered *by women* under different models of care, with differing birth locations, from Birth Choices Raising Children Network

Note: PPMs can also be employed to provide care within the hospital setting. In a public hospital, the fee would remain as listed for Homebirth (PPM) with some potential deductions for intrapartum care, however in a private hospital the fee would accumulate based on both the PPMs fees and those of the Obstetrician with whom they collaborate.

FINANCIAL IMPACTS TO THE PUBLIC PURSE

An Australian study conducted by Tracy and Tracy (2003) compared the costings associated with differing interventions during childbirth. They did this using the Australian Refined Diagnosis-Related Group (AR-DRG) codes from the Australian Institute of Health and Welfare, based on data from 1996/1997 (Table 2). They reported significant increases in the costs associated with birth, and consequently encountered by the public purse when interventions occurred, including a 21% increase in the cost of birth when induction alone was involved, and up to a 159.3% increase in cost when a caesarean section was required (Table 2). While these costings take into consideration the cost to the public purse for each event for each woman, they don't account for the ongoing costs associated with birth trauma both physically and psychologically, and they are also now outdated.

| Birth type | AR-DRG | Costs | Cost | Percentage |
|-----------------|--------|--------|-------|------------------|
| | code | | ratio | increase in cost |
| Straightforward | 060D | \$1717 | 1 | NA |
| vaginal birth | | | | |
| Induction only | - | \$2077 | 1.21 | 21% |
| Instrumental | 060B | \$2306 | 1.3 | 34% |
| delivery | | | | |
| Epidural only | - | \$2455 | 1.43 | 43% |
| Epidural and | - | \$2644 | 1.54 | 54% |
| induction | | | | |
| Caesarean | - | \$4452 | 2.5 | 159.3% |
| section | | | | |

Table 2: The costs of different types of birth absorbed by *healthcare* services and consequently government, as calculated and detailed by Tracy and Tracy (2003).

Note: PPMs can also be employed to provide care within the hospital setting. In a public hospital, the fee would remain as listed for Homebirth (PPM) with some potential deductions for intrapartum care, however in a private hospital the fee would accumulate based on both the PPMs fees and those of the Obstetrician with whom they collaborate.

Preliminary comparisons suggest that the cost ratios associated with labour and birth models of care are consistent across different countries and also over time, where the cost ratios calculated based on data obtained from 1989 and reported in Clarke et al. (1991) were closely comparable with those observed in Australian data from 1996/1997 (Tracy and Tracy, 2003). A further Australian study by Levett et al. (2018) reported the costs associated with the same AR-DRG codes reported by Tracy and Tracy (2003). This again allowed comparison of cost ratios over time, revealing that the cost ratios and percentage increase in costs remain very similar across the two datasets (Table 3).

| Year of data | Birth type | AR- | Costs | Cost | Percentage |
|--------------|-----------------|--------|---------|-------|------------------|
| from AR- | | DRG | | ratio | increase in cost |
| DRG | | code | | | |
| 1996-1997 | Straightforward | 060D | \$1717 | 1 | NA |
| 2013-2014 | vaginal birth | 060C | \$4832 | 1 | NA |
| 1996-1997 | Instrumental | 060B | \$2306 | 1.3 | 34% |
| 2013-2014 | delivery | 060B | \$6423 | 1.3 | 33% |
| 1996-1997 | Caesarean | O01B/C | \$4452 | 2.5 | 159% |
| 2013-2014 | section | O01B | \$11645 | 2.4 | 141% |

Note: Tracy and Tracy (2003) costs were based on births occurring in 1996/1997 and Levett et al. (2018) costs were based on data from 2013-2014.

Based on the consistencies in cost ratios, we estimated the current day impact of interventions on the costs of birth, similar to that reported by Tracy and Tracy (2003) so that we could compare these costs with those encountered by the public purse in a homebirth setting in the current day. Accordingly, a straightforward vaginal birth costs the public purse approximately \$4832 per woman compared to substantial increases in these costs with increasing interventions (Table 4). A cost to the public purse of \$4832 is almost comparable to the costs encumbered by women (\$3500-\$6000) when hiring a PPM for their antenatal, intrapartum and postnatal care (Table 1). Given birth at home results in significant reductions in the rates of induction, instrumental delivery, analgesia and caesarean section (Scarf et al., 2018, Homer et al., 2019; Reitsma et al. 2020), and that continuity of care with a midwife reduces interventions and improves outcomes for mothers and babies (Sandall et al., 2016), birth at home would be associated with reduced primary and secondary costs. When comparing the costs associated with different care providers in different birth places for low-risk women, Tracy and Tracy (2003) reported substantial savings in the public system compared to the private, with private obstetricians having the highest cost overall. These costings would have increased substantially over the last 16 years.

| Birth type | Costs | Cost | Percentage |
|-------------------------------|---------|-------|------------------|
| | | ratio | increase in cost |
| Straightforward vaginal birth | \$4832 | 1 | NA |
| Induction only | \$5846 | 1.21 | 21% |
| Instrumental delivery | \$6281 | 1.3 | 34% |
| Epidural only | \$6909 | 1.43 | 43% |
| Epidural and induction | \$7441 | 1.54 | 54% |
| Caesarean section | \$11645 | 2.4 | 141% |

Table 4: Present day ESTIMATES of costs of different types of birth absorbed *by healthcare services* and consequently government as calculated using data reported by Tracy and Tracy (2003) and Levett et al. (2018) and adjusting current day values with prior determined cost ratios for data not published.

Note, Tracy and Tracy (2003) costs were based on births occurring in 1996/1997 and Levett et al. (2018) costs were based on data from 2013-2014. These are estimates of current day costings based on the cost ratios obtained in previous research and applied to current day costings for those data that were otherwise not yet published.

OVERALL FINANCIAL IMPLICATIONS OF USING DIFFERENT MODELS OF CARE

In Australia in 2016 there were a total of 311,104 births (AIHW, 2016). Approximately 26% of all births in Australia occurred in private hospitals (80,887 women), and 0.3% (905) occurred at home. While some of the women birthing at home would be doing so through PFHB programs, at a cost to the public purse, it is unknown how many women actually achieve this method of birth. If we factor in that all homebirths occurred at a cost to the woman, the overall number of women birthing at a cost to the public purse is ~229,312. Given 91% of these births were at term (AIHW, 2016), we need to factor in that at least 9% of the births would not be able to occur at home, even if that was the original plan, which is approximately 27,999 births all up. Some of these likely occurred in private hospitals also, which complicates these calculations, however if we say that all of these women gave birth at a cost to the public purse then we have 201,313 women.

If we do very basic, preliminary calculations of what would occur if all of these women were birthing at home instead of the hospital, based on the costings data that was provided by Levett et al. (2018), the rate of interventions data from Homer et al., (2019), and the population data from the AIHW (2016), we observe a saving of \$390,508,568 based on changes in the intervention rates and consequent costs alone (Table 5). These savings would only increase further if the flow-on effects of minimising birth interventions were calculated, through savings to the public purse (and the individual women) of postnatal care, mental health care, physiotherapy, urogynaecological care and others.

| Birth type | Costs | % of women ^a | Number of | Total cost to | |
|----------------------------|-------------|-------------------------|-----------------------------|---------------|--|
| | | | women | public purse | |
| Homebirth | | | | | |
| Straightforward vaginal | \$4832 | 95.2 | 191,650 | \$926,052,800 | |
| birth | | | | | |
| Induction only | \$5846 | 3.4 | 6,845 | \$40,013,777 | |
| Instrumental delivery* | \$6281 | 2 | 4,026 | \$25,288,939 | |
| Epidural only | \$6909 | 3.3 | 6,643 | \$45,898,760 | |
| Caesarean section | \$11645 | 2.4 | 4,832 | \$56,262,957 | |
| Total cost to public purse | if homebirt | h were funded by go | overnment = \$1,09 3 | 3,517,118 | |
| Hospital birth | | | | | |
| Straightforward vaginal | \$4832 | 78.6 | 158,232 | \$764,577,111 | |
| birth | | | | | |
| Induction only | \$5846 | 16.5 | 33,217 | \$194,184,507 | |
| Instrumental delivery* | \$6281 | 11.9 | 23,956 | \$150,469,187 | |
| Epidural only | \$6909 | 13.8 | 27,781 | \$191,940,269 | |
| Caesarean section | \$11645 | 7.8 | 15,702 | \$182,854,611 | |
| Total cost to public purse | = \$1,484,0 | 25,685 | | I | |

Table 5: Cost analysis of different birth types coupled with statistics of births in Australia taken from AIHW, 2016 and Homer et al., 2019 with costs based on data from Tracy and Tracy (2003) and Levett et al. (2018) as described in Table 4. This data was based on a total birthing population able to have a homebirth of 201,313 women which was calculated by the total number of Australian births minus those birthing in private hospital and home, and having premature births, as described in the text.

^a Percentage rates of interventions as described in Homer et al., 2019.

^{*}Instrumental delivery includes both forceps and ventouse extraction, where rates at home and in hospital are provided in Homer et al., 2019.

CONCLUSION

The transition from a maternity system which predominantly funnels women's care into the hospital system, where women experience high rates of intervention at a cost to the public purse, to a maternity system selecting homebirth as a valid care model, would provide significant financial savings to the public purse (up to \$390,508,568). Furthermore, the reduction in interventions experienced by women birthing at home as compared to within the hospital system would further reduce the secondary costs encountered by women and the public, through minimising required mental health, physiotherapy, urogynaecological and other post-partum care. Additionally, neonatal morbidity and mortality is no different between home and hospital birth settings (Scarf et al., 2018), but women do report improved rates of birth satisfaction when receiving continuity of midwifery care (Sandall et al., 2016), which is highly likely to lead to reductions in the rates of birth trauma, post-traumatic stress disorder and maternal suicide rates post-partum. However, the choice of place of birth and care provider should always sit with the woman, as that is where the greatest rates of birth satisfaction and safety are observed.

In conclusion, it is imperative that further consideration of the public funding of homebirth for Australian women be considered in future policy and legislative decisions, and also in Medicare Benefit Schedule reviews. The redirection of birthing women to models of care that reduce intervention rates and consequent costs to their physical and psychological health and welfare has the potential to provide enormous financial savings to the public purse, and also has substantial flow on effects into the community with regard to improved psychological health and welfare. We support that the choice of place of birth and care provider should always remain with the woman, as that is where the greatest rates of birth.



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