
4 Child and maternal welfare

Key points

- There is compelling evidence of child and maternal health and welfare benefits from a period of absence from work for the primary caregiver of around six months and a reasonable prospect that longer periods (nine to twelve months) are beneficial.
- While many pregnant women can safely continue to work until shortly before birth, the required length of pre-birth leave will depend on the health of the mother-to-be, as well as her job and working conditions. This points to the importance of flexibility for work and prenatal leave decisions. The Commission also found no systemic evidence that women are taking prenatal leave periods that are too short from a maternal or child welfare perspective and, as such, does not recommend a prenatal leave period as part of the statutory paid parental leave scheme.
- Maternal recovery can be prolonged and an early return to work may increase the risk of depression and anxiety. On maternal recovery grounds, the length of absence from work should be no less than 12 weeks and potentially up to six months with wellbeing after that time dependent more on women's preferences than recovery.
- The biomedical literature suggests there are benefits from breastfeeding for infants and children (particularly if exclusively breastfed for six months) as well as for mothers. The evidence also suggests a positive association between paid parental leave and the duration of breastfeeding. Paid parental leave, together with support for breastfeeding, has the potential to improve breastfeeding rates.
- The evidence is most compelling that six months exclusive parental care fosters improved developmental outcomes (with evidence of problems strongest where non-parental care is initiated early, child care hours are extensive and care is of low quality). For the period six to 12 months the evidence is inconclusive, but beyond 12 months it suggests positive effects from quality non-parental care.
- The Commission supports ongoing efforts to integrate services to support parents of children under two, but is not convinced of the need for additional resourcing.
- The Commission proposes a paid postnatal leave period of 18 weeks. This, together with parents co-funding options (self and employer funded leave), will allow almost all infants to be exclusively cared for by their parents for the first six months of life.
- There is evidence that paternity leave has emotional benefits for fathers, positively affects children's emotional and educational achievement and provides support for the mother. The Commission proposes two weeks of paid paternity leave.

A key objective put forward for a paid parental leave scheme is to improve health and wellbeing outcomes for mothers, children and families more generally. Mothers need time to recuperate from the birth of a child, to establish breastfeeding and to bond with their new infant. The early year's of a child's life (including the prenatal period) are also now recognised as being especially important for future health and for the development of their emotional, social and mental capabilities. Parental, and particularly maternity, leave can improve the quality of these early years. As the World Health Organization (WHO) states:

A period of absence from work after birth is of utmost importance to the health of the mother and the infant. This is conducive to both the optimal growth of the infant and the bonding between mother and infant. Absence from work also allows the mother to recover. (WHO 2000)

A critical issue for this inquiry is how paid parental leave (and longer durations of leave) affects the health and wellbeing of families. While it is generally accepted that parents are the best people to make decisions about what is best for their child, the science relating to child, maternal and paternal welfare is complex, some is new, and parents may not always be aware of the gains associated with longer periods of absence from work. And, even if parents are aware of the benefits, liquidity constraints and financial hardship may force them back to work earlier than would be desirable. A related issue is the extent to which any gains from paid parental leave and longer periods of absence from work accrue to infants and their parents, and the extent to which they benefit society more generally.

This chapter looks at the evidence on the effect of parental leave policies on the health and wellbeing of mothers, children and fathers.

4.1 Leave prior to the birth of a child

The American College of Obstetricians and Gynaecologists states that:

Most of the time, a healthy woman with a problem-free pregnancy can keep working if her job poses no more risk than daily life. (ACOG 2008)

This is also the conclusion of a number of literature reviews on work and pregnancy (Gabbe and Turner 1997, Sequin 1998).

Some pregnancy related conditions, however, can interfere in a mother-to-be continuing to work, particularly in the later stages of pregnancy. A Cochrane review, for example, found that many women experience back or pelvic pain during pregnancy (two-thirds and one-fifth of all pregnant women respectively). As this pain generally increases as the pregnancy advances it can interfere with daily activities and prevent women going to work (Pennick and Young 2007). A British

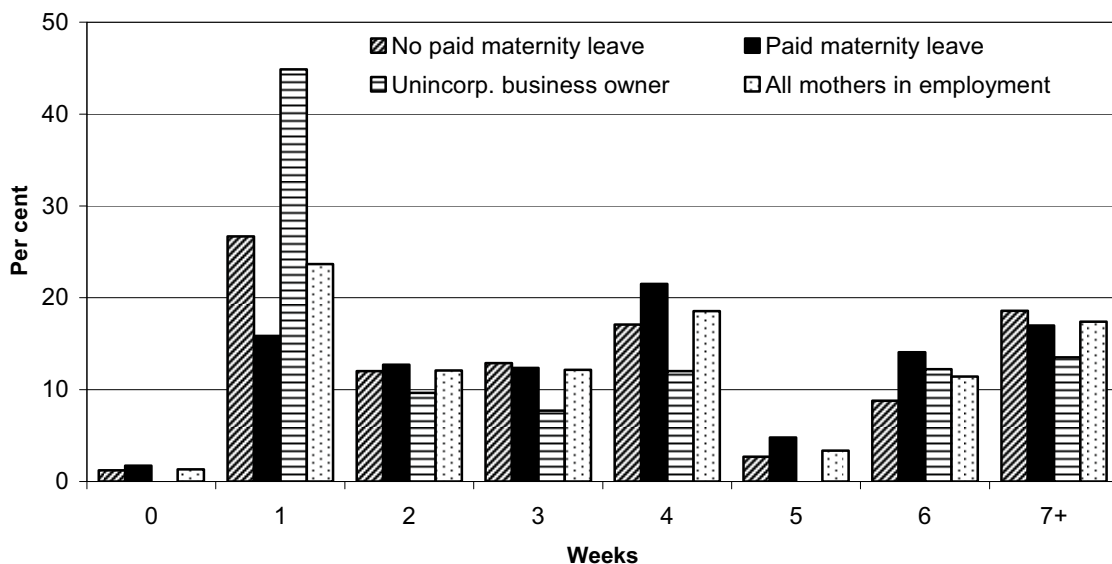
study also found that performing 32 of 46 everyday tasks were considered to be more difficult to perform during than before pregnancy (Nicholls and Grieve 1992). And, pregnant women with medical conditions, such as high blood pressure (pre-eclampsia), are required to rest during stages of pregnancy.

Women working in jobs requiring prolonged standing or walking and/or heavy lifting may find it difficult to undertake this type of work in the later stages of pregnancy. There is some evidence to suggest that strenuous work postures, heavy lifting, long standing and walking, and shift work increases the risk of sickness absence (Treffers 2000, Strand et al. 1997). Participants' personal experiences indicated varied experiences reflecting the health of the mother-to-be and her job and working conditions (box 4.1).

How much prenatal leave are Australian mothers currently taking?

Australian women in paid employment (both those with paid maternity leave and those without) took an average of four and a half weeks off work prior to birth, while women with their own unincorporated businesses took an average of four weeks in 2005. The average period of leave taken prior to birth, however, masks considerable variation in the period of prenatal leave taken (figure 4.1).

Figure 4.1 Percentage of mothers taking prenatal leave, by weeks and job characteristics



Data source: ABS (*Pregnancy and Employment Transitions, Australia, Expanded Confidential Unit Record File, Nov 2005, Cat. no. 4913.0.55.001*).

The most common period of prenatal leave for employed Australian mothers is one week (24 per cent), however, around 17 per cent take seven or more weeks prenatal leave. Mothers without access to paid maternity leave are more likely to take one week prenatal leave — forty-five per cent of unincorporated business owners and 27 per cent of employees — while those with paid maternity leave were more likely to take 4 weeks (22 per cent).

Box 4.1 Working during the later stages of pregnancy – participants’ personal experiences

Personal feedback response:

I had worked as store manager for two years when I got pregnant. I stopped working when I was 8 months pregnant as doing heavy lifting, moving boxes and unpacking merchandise for the shop, cleaning and standing on my feet for hours was too much.

Lorana Bartels:

I took 6 weeks of paid sick leave before my first [child] (due to a blood condition arising from pregnancy). I took 4 weeks leave before my second was due as that was a legal requirement of my scholarship. As she was then born two weeks late, I only had 6 weeks of my 12 weeks’ paid leave after her birth before I resumed my studies. (sub. 9, p. 1)

Alicja Mosbauer:

I required a medical certificate to work beyond 36 weeks (even though I sit behind a desk and my brain still functions). I used this opportunity to extend my time at work, as I wanted to access as much leave as possible for time with my child. My son came at close to 42 weeks, so I was happy not to have finished work too early. I am unsure of the benefits of too much prenatal leave, however, I was fit and healthy during my pregnancy and thus didn’t suffer from complications that many women do. (sub. 10, p. 1)

Angela Budai:

I planned to have 5 weeks off prior to the birth of my son, but as he was overdue it was close to 7 weeks. ... without the leave provisions I had I would have been more likely to work as close to the baby being born as was practical. ... As it turned out I was incredibly tired during the last month and working would have been incredibly difficult. (sub. 17, p. 1)

Tom Gordon:

... using pre-natal leave was not necessary because of the good health of my wife during the 9 months. (sub. 28, p. 1)

Hilary Surman:

The AWA I was employed under at the time I became pregnant only permitted me to work until 28 weeks gestation. From 28 weeks I was required to take unpaid maternity leave or use accrued annual and long service leave. (sub. 35, p. 1)

Evidence on work environments and adverse pregnancy outcomes

While some reproductive hazards associated with work, such as exposure to radiation and lead, are well established, the evidence on the extent to which other work environments heighten the risk of adverse pregnancy outcomes is less conclusive.

Some studies find that physically demanding work and prolonged standing increases the risk of adverse pregnancy outcomes (Mozurkewich et al. 2000, Croteau et al. 2007, Hanke et al. 1999). A meta-analysis of 29 published observational studies, for example, found physically demanding work (heavy and/or repetitive lifting or load carrying, heavy manual labour or significant physical exertion) to be significantly associated with preterm birth, maternal hypertension and small-for gestational-age babies (Mozurkewich et al. 2000). Preterm birth was also found to be associated with prolonged standing, shift and night work and high cumulative work fatigue scores. The odds ratios, however, were not found to be large (between 1:20 and 1:60). This may be because working women on average tend to be healthier than women who do not work.

Other studies, however, suggest that the relationship between work-related exposures and adverse health and pregnancy outcomes is less convincing. For example, Bonzini et al. (2007), in a systematic review of the evidence relating to preterm delivery, low birthweight and pre-eclampsia and prolonged working hours, shift work, lifting, standing and heavy physical workload, found that across the studies:

- for pre-term delivery findings — the larger and more complete studies were less positive and pooled estimates of risk pointed to only modest or null effects
- for small-for-gestational age, the effect was moderate, but the evidence base was more limited
- for pre-eclampsia and gestational hypertension, the effect was too small to allow firm conclusions.

Overall, the authors concluded that:

The balance of evidence is not sufficiently compelling to justify mandatory restrictions on any of the activities considered in this review. However, given some uncertainties in the evidence base and the apparent absence of important beneficial effects, it may be prudent to advise against long working hours, prolonged standing and heavy physical work, particularly late in pregnancy. (Bonzini et al. 2007, p. 228)

Studies exploring the implications of modifying working conditions for pregnant women generally observe that when pregnant women employed in strenuous work are provided work requiring less physical effort, there are some improvements in

sickness absences during pregnancy and in the occurrence of premature labour (Strand et al. 1997). For example, a Quebec study (Croteau et al. 2007), while finding an association between prolonged standing and high job strain and preterm delivery, also found the associations to be weaker when exposures were eliminated to a legally justified preventative measure (pregnant women in Quebec have a legal right to be assigned to other tasks or to withdraw from work without prejudice if working conditions present a danger to themselves or the foetus). Such findings suggest that for those women engaged in heavy physical work, a transfer to lighter work during pregnancy may be beneficial.

The WHO recommends that during the second half of pregnancy women need to transfer to lighter work and eliminate night work to reduce the risk of causing ill health to the mother and the risk of having a premature or low-birth weight baby. Also, that pregnant women need to be completely absent from work from week 34 to 36 — although this depends on the health of the mother and her physical workload. Protection from noxious agents is also recommended as is provision for rest breaks and leave for antenatal care (WHO 2000).

Similarly, the International Labour Organisation (ILO), while indicating that ‘working during pregnancy is not in itself a risk, except immediately before and after childbirth’, note that some aspects of pregnancy can affect a woman at work and there may be things at work that put the woman or child at risk (Paul 2004, p. 9). The ILO’s *Maternity Protection Convention, 2000* (Convention No. 183) sets out the right to health protection by calling for measures to ensure that pregnant (or nursing) women do not perform work prejudicial to her health or that of her child. Recommendation No. 191 provides for adaptations in the pregnant women’s working conditions in order to reduce particular workplace risks related to the safety and health of the pregnant woman and her child (ILO 2007).

Currently under the Australian Government’s National Employment Standards a pregnant woman:

- can take unpaid parental leave up to six weeks prior to birth, but may work right up to the birth of the baby (at the employer’s requests she must provide medical evidence about her fitness for work and any risks she may face)
- is entitled to be transferred to an appropriate ‘safe’ job provided that she gives her employer evidence that she is fit to work but should not continue in her present position because of risks arising out of her pregnancy or out of hazards associated with the position. If transferring an employee to a safe job is not reasonably practicable for the employer, the employee is entitled to leave at full pay

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- is entitled to special maternity leave if she is unfit for work because of a pregnancy related illness or if pregnancy ends within 28 weeks of the expected date of birth otherwise than by the birth of a living child.

Does pre-birth leave improve pregnancy outcomes?

Some countries have parental leave arrangements with a compulsory ante-natal care period, while others allow ante and post natal leave care to be combined. Cross-country studies by Ruhm (1998) and Tanaka (2005) found that paid leave entitlements have a significant effect on early mortality rates and the incidence of low birth weight, but that there is a stronger negative relationship between leave duration and post-neonatal mortality. According to Tanaka:

The weaker effects on perinatal mortality rates were anticipated due to the short period of pre-childbirth leave provided in most countries. But, since some countries set a specified period of mandatory prenatal leave and other countries recommend specific periods of pre-birth leave, these short periods of pre-birth leave can be a factor in decreasing early infant mortality rates. One interpretation could be that a longer pre-birth leave would increase chances of mothers receiving prenatal care, which is a significant factor for early child health conditions. (Tanaka 2005, pp. F21-22)

Commenting on the differences in available prenatal maternal leave across the OECD countries, and the results from Tanaka's study, Chappel said:

The wide variation observed in approaches to maximum prenatal leave does not appear to be strongly evidence-based. While there is country panel-based evidence that paid parental leave may improve birth outcomes (Tanaka 2005), there are no evaluations on whether the split in paid parental leave (prior to and after birth) impacts on maternal or birth outcomes. (Chappel 2007, p. 10)

A Swedish study found no correlation between increases in infants weight in that country over the period 1978 to 1994 and more generous pregnancy leave arrangements (a pregnancy benefit program was introduced in 1980 in Sweden to provide up to 50 days leave for employed pregnant women whose occupation was considered particularly monotonous and strenuous and whose employer could not transfer her to a more suitable position). The authors concluded that 'the effects of social benefit programs on pregnancy outcomes may thus be overrated and merits further research' (Sydsjö et al. 2006, p. 991).

A recent study undertaken in California found that women taking prenatal leave up to four weeks prior to delivery had an almost four times lower odds of having a primary caesarean delivery (after adjusting for covariates) compared with those not taking leave (Guendelman, Pearl et al. 2009). While the study did not find any association between mean birthweight and leave in the ninth month of pregnancy, it

did find that there may be benefits for women at high risk of job strain from prenatal leave (in terms of prolonging gestation).

An optimal period of prenatal leave?

Overall, the evidence supporting the association between work and adverse pregnancy outcomes is inconclusive. And, while there is some evidence to suggest that a period of prenatal leave may improve pregnancy outcomes, there also appears to be a stronger relationship between parental leave durations and post neonatal mortality than for peri-natal mortality.

Based on the evidence, the required length of prenatal leave will depend on the health of the mother-to-be, the nature of the pregnancy, as well as the woman's job and work conditions. For women working in jobs with heavy physical workloads or working at night, time out of the workplace or a transfer to lighter or day work in the later stages of pregnancy may be beneficial to the health of the mother and the infant (under the National Employment Standards employers are obliged to transfer pregnant women to a 'safe' job if medically indicated, and if not available, to pay 'no safe job' leave). But, many pregnant women can safely continue to work until shortly before birth without risk. These findings point to the need for flexibility for work and prenatal leave decisions, with the decisions about taking antenatal leave being left open to women, in consultation with their employers and their treating doctors.

While a number of participants agreed with the proposal in the draft report that a period of prenatal leave shouldn't be mandated (see for example, sub. DR377, sub. DR310), many argued the need for a prenatal leave period. Some suggested that the restriction on when the period of statutory paid parental leave could be started should be lifted so that prenatal leave could be taken if required. Many expressed concern for those pregnant women (particularly casual workers) who are less likely to have access to other forms of leave (such as prenatal leave, personal/carer's leave, special maternity leave of no safe job, recreational leave) to cover leave they may require in the prenatal period (box 4.2). Others (such as the ACTU, sub. DR365, p. 8) argued that primary carers need access to a bank of leave in order to manage ongoing caring responsibilities and their own personal health upon return to work and hence they should not be required to draw on this leave to cover the prenatal period.

Box 4.2 Participants' views on a prenatal leave period as part of a statutory scheme

CPSU:

If women want to take the time off prior to birth, they should have the flexibility to do so. (sub. DR376, p. 11)

BPW Australia:

BPW Australia questions the starting date of the proposed maternity leave; many existing paid maternity leave schemes in Australia and internationally commence up to six weeks before confinement. BPW would support more flexibility in commencement date rather than the proposed date of birth. (sub. DR321, p. 2)

Catalyst Australia Inc:

It is entirely consistent with the Inquiry's guiding emphasis on health and wellbeing to allow women to access paid parental leave where medical grounds require a period of pre-natal confinement. That is, if the health of the mother is an important consideration in public policy, it shouldn't matter where in the 'birth cycle' these health needs are met. (sub. DR374, p. 2)

Australian Human Rights Commission:

A disadvantage of the proposed model is that it does not allow women to take any of the paid parental leave just prior to birth ... The Commission does not accept poor additionality as a good reason for limiting options for women to begin taking paid leave earlier and recommends that paid leave be available to women to take immediately prior to birth. (sub. DR377, p. 9)

... In order to strike a good balance on this issue it may be appropriate to limit the period of paid leave available prior to the birth to four to six weeks to ensure that a period of paid leave is available following the birth. However, the Commission is in agreement with the Inquiry in that it would not support a compulsory period of leave being mandated for women either before or after the birth of a child. (sub. DR377, p. 19)

Unions Tasmania:

If a woman becomes ill prior to birth of a child she may not necessarily be able to access alternative forms of leave such as antenatal leave, personal/carer's leave, special maternity leave or 'no safe job' leave. Recreational, annual or long service leave may not be available to some parents. This issue particularly affects seasonal and casual workers. Families should be able to take paid parental leave prior to the birth of the child if they need to. (sub. DR400, p. 6)

Zonta International District 24:

Using other forms of leave to 'co-fund' neonatal parental leave again provides only the illusion of paid parental leave. The reality for many parents is that all other forms of leave will be exhausted for meeting the exigencies of early childhood, and they inevitably end up on unpaid leave simply to cope with the normal events of childhood prior to school. Using this up in the ante natal period compromises the important events and requirement of the first couple of years. (sub. DR408, p. 4)

There is, however, no systemic evidence that women (in the absence of a statutory paid parental leave scheme) are taking prenatal leave periods that are too short from a maternal or child welfare perspective and most have the capacity to self-fund this short period of leave (and a paid parental leave scheme will improve their capacity to fund this period of leave). Also:

- many women will be able to access privately funded paid prenatal leave
- many women will be able to access paid personal leave if there is a health concern in the prenatal period or to access recreational leave even when this is not the case
- sickness benefits provide an emergency backstop if no employee entitlements are available
- the Commission's proposed '10 of 13' months test prior to the expected date of birth allows women who need a period of prenatal leave for health reasons to do so without putting at risk her subsequent eligibility for postnatal statutory paid parental leave.

And, as discussed above, the evidence suggests that other factors (the health of the mother-to-be, her job and working conditions, the nature of the pregnancy), rather than the existence of paid parental leave determine the length of leave women take in the prenatal period. This suggests that a period of prenatal paid leave (at a cost to taxpayers) is unlikely to change behaviour — hence there would be poor 'additionality'.

As such, the Commission does not propose a prenatal leave period as part of the statutory paid parental leave scheme. The issue of prenatal leave could, however, be re-visited as part of the three year review of the statutory scheme.

4.2 Maternal recovery

Many participants argued that mothers require a period of time away from work to physically recover from childbirth, restore functionality and mental health, and overcome fatigue resulting from loss of sleep and the demands of caring for an infant. Participants generally supported their claims by citing their personal experiences and by reference to the ILO *Maternity Protection Convention 183*, which advocates a minimum of 14 weeks paid leave in order to protect women's health during pregnancy and support the establishment of breastfeeding.

Most — but not all — women in the paid workforce have the right to unpaid maternity leave under current rules, for up to 52 weeks. But some mothers indicated that because of financial constraints, unpaid maternity leave did not give them a

choice about having time away from work to fully recover from childbirth and adapt to their new role of caring for an infant. The Human Rights and Equal Opportunity Commission submission contained two personal experiences:

When my second child was born my husband wasn't working so I had to go back to work after a caesarean after two days. I had no choice. It would make a huge difference if we got 14 weeks to be able to physically recover.

And:

I worked up until I was 38 weeks pregnant then took 2 weeks of annual leave because I didn't have access to paid maternity leave. (sub. 128, p. 27)

A number of submissions also raised concerns about the impact of an early return to work on the health and wellbeing of mothers and infants (box 4.3). As noted in chapter 3, around 11 per cent of mothers employed prior to having a baby return to work by three months, around 26 per cent return by six months and 57 per cent return by the time their baby is one year old.

How much time to recover and return to full functionality?

When seeking to answer the question — what is the optimal period of parental leave — an important consideration is how long it takes a mother to physically and mentally recover from having a baby and restore functionality.

From a medical perspective, maternal recovery takes six weeks (this is the period of time it takes for a women's body to return to its non-pregnant state following childbirth). Researchers looking at the issue of maternal recovery, however, commonly argue that because most women contend with several minor to moderate discomforts that can limit daily functions for some time, that a broader definition of maternal recovery that covers functionality is required. Tulman and Fawcett, for example, said:

Medical tradition has set the time of recovery from childbirth at 6 weeks, based on the healing of the reproductive organs rather than on a broader, more health-oriented definition of recovery that encompasses the resumption of usual activities and the assumption of the new responsibilities entailed by the birth. (Tulman and Fawcett 1991a, p. 294)

International and Australian evidence suggests that full recovery from pregnancy and childbirth can be prolonged with a range of studies suggesting a period of six months or longer. For example:

- A US study looking at the changes in the physical health of 436 first time mothers during the first year following childbirth (surveys conducted at one, three, six, nine and 12 months) found that although *most* physical health

problems of mothers were resolved by the third postpartum month, several persisted up to and beyond this time (Gjerdingen et al. 1993).

Box 4.3 Participants' concerns about an early return to work on the health and wellbeing of mothers and infants

Public Interest Advocacy Centre:

PIAC is disturbed by evidence given to this Inquiry about large numbers of women being forced to return to work within a few months of giving birth because of lack of paid leave entitlements (evidence of Unions New South Wales, pp.285–401) This may have a detrimental impact on the mother's physical and emotional health and wellbeing, which may also impact upon the health and wellbeing of the child. (sub. 226, p 7)

What Women Want (Australia) Inc:

The financial impacts and pressures on young families often see new mothers returning to work before they are ready to. Stress comes with added health risks for any individual, but for a new mother who may also still be physically and mentally recovering from childbirth, the added stress of financial worries and returning to work before six months is becoming problematic for many Australian women. Many women are genuinely concerned about the affect that returning to work has on their newborn. Coping with the separation of mother and child is also a concern for mothers and fathers who may have to leave their infant at childcare facilities.

... If a 14 week scheme was introduced women who had given birth via caesarean section could spend half of their maternity leave recovering from surgery. (sub. 64, p. 7–8)

CPSU:

The survey of our members and the evidence presented at the Productivity Commission hearings very clearly demonstrates that this average entitlement of 12-14 weeks paid leave is not enough and due to financial pressures, if women cannot extend their leave by using accrued and annual and long service leave, many return to work before their baby is 6 months old. This is not in the interests of the child or the mother. (sub. 160, p. 20)

Lorana Bartels:

Although I had a very speedy recovery from my first baby, I returned to work after 6 weeks with my second, who was a much more difficult baby, and quickly developed post natal depression. Although I then took a further 2 weeks of sick leave for mental health reasons, in retrospect I now realised I didn't take anywhere near enough time off work. (sub. 9, p. 2)

Maternal and Child Health State Coordinators Group:

Caring for a young infant can be exhausting. If you are required to work, express your breast milk and have disturbed sleep, which is normal in the first few months, the mother's health and wellbeing will suffer.

... Returning to work and being separated from a new infant increases stress and anxiety for mothers, the increase in work load causes further distress for new mothers. (sub. 212, pp. 2–3)

- An Australian population based survey covering 1336 women who gave birth in Victoria in 1993 found that 94 per cent of women experienced one or more health problems in the first six months after childbirth — the most common

being tiredness (69 per cent) and backache (44 per cent) (Brown and Lumley 1998).

- Another Australian population based cohort study covering 1193 women who gave birth in the ACT in 1997 found that while problems such as exhaustion/extreme tiredness and backache declined over the first six months, 49 per cent of women reported these health problems between 17 and 24 weeks postpartum (Thompson et al. 2002). Just six per cent of women reported no health problems in the first eight weeks after childbirth, 17 per cent in the second 8 weeks and 19 per cent between 17 and 24 weeks.

The evidence also suggests that the time required for complete maternal recovery depends on the circumstances of birth. Women having babies by caesarean section generally require longer to recover physically than women who give birth naturally (in 2006, 31 per cent of babies were delivered by caesarean section, Laws and Hilder 2008). Women who deliver by caesarean section are more likely to report exhaustion/extreme tiredness and to be readmitted to hospital in the first eight weeks postpartum period (Thompson et al. 2002). McGovern et al. (2006) found that health concerns were greater five weeks after childbirth for those mothers whose babies were delivered by caesarean section.

Studies looking at new mothers' functional status (defined as a mother's ability and readiness to integrate her new role as a mother and her other duties in the household, community and workplace and to resume self-care activities), find that a return to full functionality can take months rather than weeks. Repeated baby night-time awakenings, together with a lack of physical energy, are found to affect mothers return to full functional status. For example:

- A US study found that recovery as measured by performance of usual activities is not complete until at least six months after delivery for many women. Six months after delivery, 14 per cent of mothers had not fully resumed usual household activities and 26 per cent had not fully resumed social and community activities (Tulman and Fawcett 1991b).
- An Australian survey covering 132 new mothers found that none of the new mothers had achieved full functional status at six weeks after childbirth. Seventeen per cent had resumed their activities in and around the home; 8 per cent had resumed social and community activities; and 27 per cent self care. For baby care, 47 per cent reported being fully engaged in their desired level of care (Mc Veigh 1997).

The study by McVeigh also found that only 18 per cent of mothers who had resumed employment felt that they were functioning at as high a level as they had prior to having their baby. Likewise, a UK survey found that mothers returning to

work after 18 weeks (when maternity pay ended at that time) felt more distracted and less productive than mothers returning to work after a longer period (DTI 2000).

Family and social support, as well as infant temperament, also appears to impact on maternal recovery and a mothers stamina and wellbeing (Tulman and Fawcett 1991a, McVeigh 1997).

Leave and maternal health and wellbeing

A number of submissions pointed to the importance of a period of leave to support the psychological health of mothers (which in turn affects the psychological health of the child). The National Children's and Youth Law Centre, for example, said:

Of particular salience to a child rights analysis is the relationship between maternal and child health. It could be argued that improvements to maternal health consequentially improve child health and development outcomes by increasing maternal capacity to provide adequate care and also by helping to create an optimum environment in which to foster bonding and attachment. (sub. 152, p. 6)

The research also suggests that there is a positive relationship between the length of maternity leave and maternal health and wellbeing. One US study, for example, found that mothers reported higher vitality when taking more than 12 weeks leave after childbirth; better mental health when taking more than 15 weeks; and fewer limitations to their daily role when taking more than 20 weeks leave (McGovern et al. 1997).

Other studies show that returning to work after a brief period of maternity leave is a risk factor that compromises maternal health. For example:

- A survey of 436 first time mothers found a significant decline in depressive symptoms from the prenatal period through to the sixth postpartum month in those women who did not return to work (Gjerdingen et al. 1991). Of the women who had returned to work, those taking leave longer than 24 weeks had better mental health outcomes at nine and 12 months (Gjerdingen and Chaloner 1993). Employed mothers were also found to have higher rates of respiratory infections, breast symptoms and gynaecologic problems than mothers who were not employed (Gjerdingen et al. 1993).
- A US study by Chatterji and Markowitz (2005), using data from the Early Childhood Longitudinal Study found that increasing maternity leave from six (or fewer) weeks to eight to 12 weeks or more than 12 weeks reduced the number or frequency of depressive symptoms (by 11 and 15 per cent). And, more recently Chatterji and Markowitz (2008) found longer maternity leave, both paid and unpaid, to be associated with declines in depressive symptoms, a reduction in the

likelihood of severe depression, and an improvement in overall maternal health. The benefits of longer leave were found to be persistent well into the first year after childbirth.

Other studies show that the risk of depression and anxiety is particularly high when an early return to work coincides with maternal fatigue, poor general health, marital concerns and/or poor social support (Hyde et al. 1995, Klein et al. 1998). Hyde et al. (1995, p. 282), for example, concluded that ‘short leave can be conceptualised as a risk factor that, when combined with other risk factors such as marital concerns, is related to elevated levels of depression’.

Longer term, maternal wellbeing appears to be influenced by the fit between mothers’ actual and preferred roles (whether employed or at home) and her satisfaction with the role (McKim et al. 1999, Hock and DeMeis 1990, Klein et al. 1998). As Lero put it:

... research on maternity leave and mental health generally demonstrates that whether employed or at home, a mother’s role quality (the fit between their actual and preferred role, satisfaction with their role, and the support they receive from their spouse and society) is a stronger factor in accounting for mental health than considerations that focus on leave per se. Women who return to work and experience overload and lack of flexibility and support experience anger, distress and depression, and women who are at home but are concerned about role restriction and are depressed are both at significant risk. (Lero 2003, p. 5)

Another UK study, however, suggests that not having a job to return to after having a baby significantly increases the risk of postnatal depression (Warner et al. 1996). The authors concluded that this may reflect the isolation and low self-esteem experienced by some nonworking mothers, while also acknowledging that those most at risk of depression may also be those not seeking work in the post-natal period.

Around 14 per cent of employed Australian mothers leave the labour market around the time of birth, and for 20 per cent of these mothers the lack of paid maternity leave was the reason for leaving (Whitehouse, et al. 2005).

Maternal recovery – where does it leave us?

Overall, the evidence suggests that recovery from pregnancy and childbirth and the return to full functionality can be prolonged. There also appears to be a positive relationship between the length of maternity leave in the short term and maternal health and wellbeing. On health and wellbeing arguments alone, the optimal length of absence from work for a new mother should be longer than 12 weeks and potentially up to six months, with wellbeing after that time dependent more on women’s preferences than recovery from childbearing.

Given these findings on maternal recovery, it may seem appropriate to quarantine a portion of any paid leave for mothers to ensure a period of physical convalescence and recovery after childbirth (in a number of countries there is a compulsory maternity leave period following the birth). Many submissions argued for a period of leave quarantined to mothers. The Human Rights and Equal Opportunity Commission, for example, said:

A period of paid leave reserved for birth mothers — paid maternity leave — is biologically essential for women so that they can take time off from paid work prior to and immediately following childbirth in order to recover physically and emotionally from childbirth and must be considered a priority for the Inquiry. (sub. 128, p. 18)

Other submissions, however, argued for parental leave. The National Pay Equity Coalition, for example, said:

NPEC believes that the paid leave should be available as parental leave, to be taken by either parent, or by the mother's same sex partner. It may best suit some families for the father/partner to take paid leave to provide care for the baby and for the mother to return to paid work. For some mothers breastfeeding is not possible. In some families the mother may earn more than the other parent/partner and therefore household welfare is maximised by her return to work. Paid and unpaid leave for fathers also addresses the issue of gender equity in parenting and in modifying workforce participation due to caring responsibilities. (sub. 116, p. 10)

The evidence suggests that reserving a period of leave for mothers would largely reinforce what most mothers already do (only 11 per cent of mothers employed prior to having a baby return to work within the first three months). An evaluation of New Zealand's paid parental leave scheme (14 weeks paid leave) also found that it was rare for mothers to transfer their leave to partners:

For both biological and social reasons it is almost solely mothers who take paid parental leave and extended parental leave. Recovery from childbirth is seen as being supported by PPL as is breastfeeding for many women. (Department of Labour 2007, p. 23).

Reserving a period of time for mothers would, however, reduce flexibility in circumstances where the option for the partner to take the leave might be highly desirable (death of the mother, post-natal depression, a choice by a mother whose recovery is quicker and would like her partner to provide care, etc).

Considering the diversity of families and the individual needs of parents, differing experiences of childbirth (and adoption), and variations in maternal health, flexibility for either partner to utilise the leave would appear to be important. Accordingly, the Commission recommends allowing mothers a choice about who takes the leave (eligibility for paid parental leave determined through the mother), with no mandatory requirement that she take it for any given period.

Provisions for part-time parental leave?

The Commission sought feedback from participants on the merits (or otherwise) and practicality of a provision for part-time paid parental leave. Many participants supported part time parental leave on the basis that it would provide families with greater flexibility and choice in terms of managing work and caring responsibilities. Some suggested that part time provisions may encourage men to take leave and facilitate longer periods of exclusive parental care. Others, however, were of the view that such provisions could undermine the objective of enhancing maternal and child health and development and add to the complexity of the scheme (box 4.4). The Australian Human Rights Commission suggested that in the interest of ensuring that the health and wellbeing objectives of paid leave are met, the first 14 weeks of leave should be taken as a continuous block while the last four weeks could be taken part time or shared to provide a degree of flexibility and help facilitate shared care for couples who wish to share caring responsibilities (sub. DR377, p. 19).

Allowing parents to take leave on a part-time basis would:

- give families more choice about how best to arrange parental care for their new baby while maintaining exclusive parental care that is important for child wellbeing
- give men a greater practical capacity for caring for their children (which may encourage greater sharing of care responsibilities)
- allow both parents to maintain connection to the labour market.

Also, by allowing parents to choose the option that best suits their individual circumstances, provisions for part-time parental leave are unlikely to undermine the child and maternal welfare goals of the scheme.

Such provisions, however, add to the complexity of the scheme and a statutory obligation for employers to agree to part-time leave could be disruptive to many workplaces. While a requirement for employer consent could reduce such concerns, employers may feel obligated to give consent (especially given the right for employees to request flexible working arrangements under the proposed National Employment Standards).

As such, the Commission does not recommend part-time paid parental leave provisions in the initial implementation of a statutory paid parental leave scheme. Part-time parental leave provisions should, however, be revisited as part of the proposed three year review of the statutory scheme (at this time businesses would have adapted to a statutory paid parental leave scheme and there is likely to be greater clarity about the operation of the ‘right to request’ provision in the National Employment Standards).

Box 4.4 Part-time paid parental leave — participants' views

Many participants supported provisions for part-time parental leave as part of the statutory paid parental leave scheme. For example, the Office of the Anti-Discrimination Commissioner said:

The OADC supports flexible options that involve taking paid leave part-time, sharing it with the other parent, or taking leave in more than one period. The OADC is not of the view that a more rigid approach will benefit children or parents, given the diverse make up of families and their work commitments in today's society. (sub. DR378, p. 6)

Australian Breastfeeding Association:

To allow families the ability to make decisions best suited to their individual circumstances, the ABA recommends that the Commission consider the option of allowing fathers access to part time paid parental leave. This may help facilitate a gradual return to employment for mothers and allow a greater time of exclusive parental care. For mothers that are continuing to breastfeed this transition provides that opportunity for parents to refine the process of expressing and storing breastmilk before introducing care arrangements. (sub. DR391, p. 3)

Australian Women Lawyers:

The system should support and encourage individual family decisions as to managing work-life balance, particularly those which enable both parents to spend more time with their young children. Although the sharing or transfer of a portion of paid parental leave entitlements would increase the administrative complexity of the system, AWL submits that the associated cost is easily outweighed by the benefits of families of structuring flexible work and caring arrangements.

Furthermore, if the system acts as a barrier to shared care of children this will reinforce the outdated stereotype that it is a women's role to stay at home with her children. (sub. DR389, p. 3)

Others saw little merit in including part-time provisions as part of the statutory scheme. For example, the Australian Industry Group said:

There is unlikely to be great demand for such arrangements in the 18 weeks following the birth of a child. (Indeed, where the decision to return to work is financially motivated, the scheme would alleviate this pressure);

There is uncertain and potentially problematic interaction with existing unpaid parental leave entitlements and the right to request flexible working arrangements under the NES; and

The ability to take leave part-time could also be seen as undermining the objective of the scheme of enhancing maternal and child health and development. (sub. DR363, p. 14)

Australian Chamber of Commerce and Industry also said:

Page 2.1 states that the 18 weeks could be shared amongst parents. It is uncertain how an employer would know for certain that an employee's partner is not obtaining payments from another employer or the Government. Asking employers to preclude defrauding of the government would be a very difficult proposition and an inappropriate shifting of responsibilities. (sub. DR399, p. 26).

4.3 Breastfeeding – benefits for children and mothers

Many submissions emphasised the health and development benefits of breastfeeding (particularly for the first six months) for both infants and mothers. It was commonly argued that the prime objective of a paid scheme ought to be to allow sufficient time for mothers to establish breastfeeding and to bond with their child. They cited personal experiences and evidence from the WHO and other health professionals. A number of submissions noted a tension between WHO recommendations on exclusive breastfeeding and paid parental leave schemes of less than six months. The Australian Breastfeeding Association, for example, considered that the inquiry was ‘a timely opportunity to bring industrial legislation in line with public health recommendations and to remove a major barrier to breastfeeding’ (sub. 249, p. 5). What Women Want (Australia) Inc, also said:

The WHO recommends exclusive breastfeeding for the first six months of a baby’s life so combining the needs of a newborn with the commitment of full time, part time or casual work can clearly become problematic. While women should always be given a choice to decide what is best for them and their newborn in regards to breastfeeding, it is important that all women be provided with the opportunity to take a period, ideally six months, of paid maternity leave. (sub. 64, p. 3)

A number of participants argued for paid maternity leave on social benefits grounds. The Australian Breastfeeding Association said:

Premature weaning from breastfeeding results in an unnecessary disease burden on our health care system. (sub 249, p. 6)

Similarly, the Women’s Action Alliance argued that:

... by encouraging women to breastfeed, you’re not only enhancing the baby’s welfare, you’re enhancing the whole of society, because this lovely bit of research came out the other day, breast milk goes straight to the head ... the breastfed ones are more intelligent. That’s good for all of us to be breeding intelligent children for the future of Australia.

But there is another piece of research about breastfeeding ... that showed that returning to paid work, whether it be full-time or part-time suppresses breastfeeding. So it’s bad really for health and intelligence of future generations. (trans., p. 185)

How strong is the evidence of benefits from breastfeeding?

The biomedical literature on breastfeeding is voluminous and the *claimed* health benefits for infants, children and mothers are extensive.

But, despite the volume of research, evidence of a causal relationship between breastfeeding and health benefits has been difficult to obtain. This is largely because

almost all the studies on potential health benefits of breastfeeding are observational (in part because it is unethical to conduct randomised controlled trials of infant feeding methods). Observational studies have well-recognised sources of potential bias (including selection bias, confounding variables and reverse causality), which puts questions around the credibility of inferences and casts doubts on the magnitude of claimed benefits from breastfeeding. As Kramer et al., said:

Current evidence that breastfeeding is beneficial for infant and child health is based exclusively on observational studies. Potential sources of bias in such studies have led to doubts about the magnitude of these health benefits in industrialised countries. (Kramer et al. 2001, p. 413)

Consistent evidence from well designed cohort and case-control studies, however, have contributed to the evidence base. Evidence is also built by pooling the results from several studies (applying stringent methodological criteria), where possible from different populations, either through systematic reviews or meta-analyses (Kramer and Kakuma 2002, Leon-Cava et al. 2002, Horta et al. 2007, Ip et al. 2007). Leon Cava et al., while acknowledging the flaws of observational studies, also considered the sum of evidence to be convincing:

... no single study is as conclusive as a randomized controlled trial could be. However, as the epidemiological evidence favouring breastfeeding is generally derived from multiple studies in a variety of situations, the evidence is in sum, convincing. (Leon Cava et al. 2002, p. 3)

More recently, results from a large randomized trial in Belarus (including 17 000 healthy mother-infant pairs intending to breastfeed) where centres were randomly assigned to deliver support for breastfeeding have significantly improved the evidence base.

Health benefits for infants and children

Breastfeeding is considered the optimal form of infant feeding and a key determinant of infant health. The American Academy of Pediatrics state that:

Human milk is species-specific, and all substitute feeding preparations differ markedly, making human milk uniquely superior for infant feeding. (American Academy of Pediatrics 2005, p. 496)

A range of studies find protective health benefits and improved developmental outcomes for breastfed infants when compared with formula-fed infants (appendix H provides more detail on the evidence relating to the benefits of breastfeeding).

The evidence indicates breastfeeding reduces the incidence and severity of a number of infectious diseases in infants including — gastrointestinal illnesses,

respiratory tract infections and middle ear infections. More exclusive and longer periods of breastfeeding are also associated with lower rates of infant illnesses (particularly gastrointestinal illnesses). Possible protective effects from breastfeeding have also been found against sudden infant death syndrome in the first year of life, the incidence of insulin-dependent (type 1) diabetes and some childhood cancers, although more research is required (American Academy of Pediatrics 2005). There is conflicting evidence for the protective effect of breastfeeding against asthma and other allergies (Kramer et al. 2007).

There is also increasing evidence that breastfeeding may have longer term effects, including the reduced incidence of obesity, diabetes (type 2), blood pressure and cholesterol in later life (Ip. et al. 2007, Horta et al. 2007). And, some (but not all) studies find an impact on later intelligence (Evenhouse and Reilly 2005 compared with Der et al., 2006, Anderson et al.1999, Kramer et al. 2008).

New evidence from the Promotion of Breastfeeding Intervention Trial shows that prolonged and exclusive breastfeeding improves children's cognitive development as measured by IQ and teachers' academic ratings at age six and a half. The authors concluded that:

Because protection against infections in developed country settings does not have the life-and-death implications for infant and child health that it does in less-developed settings, cognitive benefits may be among the most important advantages for breastfed infants in industrialised societies. (Kramer et al. 2008, p. 583)

Health benefits for mothers

The literature also points to a range of health benefits from breastfeeding for mothers, including:

- the promotion of a mother's recovery from childbirth
- earlier return to pre-pregnancy body weight and a prolonged period of postpartum infertility
- reduced risks of breast cancer
- possible reduced risk of ovarian cancer
- possible reduced risk of post-menopausal hip fractures and osteoporosis (American Academy of Pediatrics 2005, Labbock 2001).

Exclusive breastfeeding for six months

In 2000, the WHO commissioned a Cochrane Systematic Review of the scientific literature on the optimal duration of exclusive breastfeeding. Based on the evidence

available, the review recommended exclusive breastfeeding for six months. The current clinical orthodoxy (the World Health Organization, the American Academy of Pediatrics 2005, Australia's National Health and Medical Research Council, the Royal Australian College of General Practitioners and others) is a recommended six months of exclusive breastfeeding (box 4.5).

Box 4.5 Breastfeeding recommendations

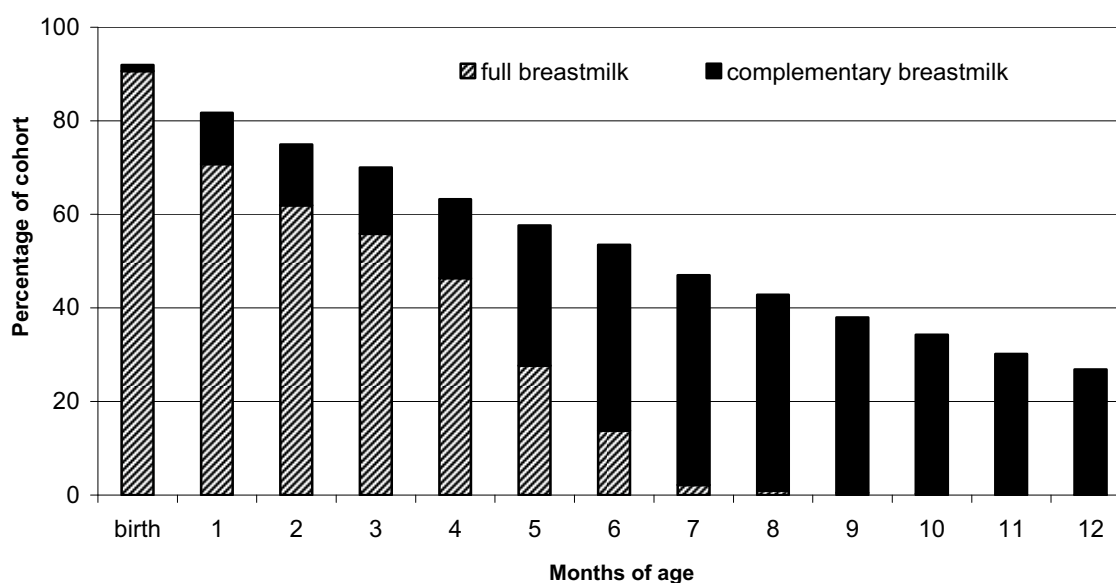
The **WHO** recommends exclusive breastfeeding for six months. In 2001 the WHO changed the recommendation for exclusive breastfeeding from four to six months, and urged Member States to 'support exclusive breastfeeding for six months as a global health recommendation taking into account the findings of the WHO Expert Technical Consultation on optimal duration of exclusive breastfeeding and to provide safe and appropriate complementary foods, with continued breastfeeding for up to two years or beyond' (Resolution World Health Assembly 54.2, ref Agenda Item 13.1, Infant and young child nutrition, A54/45, para 2(4)).

The **American Academy of Pediatrics (AAP)** has recommended six months as the optimal duration of exclusive breastfeeding since 1997 (AAP 1997). On revising its policy statement on breastfeeding in 2005 the AAP said – 'Pediatricians and parents should be aware that exclusive breastfeeding is sufficient to support optimal growth and development for approximately the first 6 months of life and provides continuing protection against diarrhea and respiratory tract infection. Breastfeeding should be continued for at least the first year of life and beyond for as long as mutually desired by mother and child' (AAP 2005, p 499).

The Australian **National Health and Medical Research Council** states that: 'For Australia, it is recommended that as many infants as possible be exclusively breastfed until 6 months of age. It is further recommended that mothers then continue breastfeeding until 12 months of age – and beyond if both mother and infant wish. Although the greatest benefits from breastfeeding are to be gained in the early months, especially from exclusive breastfeeding for at least six months, there is no doubt that breastfeeding provides benefits that continue beyond this time. After six months, continued breastfeeding along with complementary foods for at least 12 months will bring continuing benefits' (NHMRC 2003, pp. 305–306). The objectives for Australia are an initiation rate in excess of 90 per cent and 80 per cent of infants breastfed at the age of six months.

In Australia, most women exclusively breastfeed for much shorter periods than six months (and significantly less than women in many other developed countries). While the majority of Australian women commence breastfeeding (92 per cent of babies are breastfed at birth), just 14 per cent are exclusively breastfed at six months (figure 4.2). The rate of exclusive breastfeeding falls to 71 per cent at one month, declines steadily over the next three months and then falls rapidly after the fourth month — from 46 per cent to 28 per cent at five months.

Figure 4.2 **Breastfeeding in Australia, the first 12 months**



Data source: LSAC 2006-07 Annual Report.

While the breastfeeding initiation rate meets the National Health and Medical Research Council's (NHMRC) target, the rate of breastfeeding at six months is well below 80 per cent, a goal considered by the Council to be achievable in Australia:

An initiation rate in excess of 90 per cent, and 80 per cent of mothers breastfeeding at six months are achievable goals in Australia. Of the developed countries, Norway consistently reports the highest breastfeeding rates, ones that Australia should strive to achieve:

- Ninety-two per cent of mothers are breastfeeding their child when it is 3 months of age
- Eighty per cent are breastfeeding their child at six months
- Forty per cent are still breastfeeding their child at 12 months. (NHMRC 2003, p. 2)

Early weaning — some estimates of costs

Most of the studies that have tried to put a dollar value on the costs of unnecessary disease burden of premature weaning have concentrated on the direct health care costs (increased rates of infant hospitalisation and duration of infant hospitalisation, increased use of health services, etc), of infant illnesses associated with not breastfeeding. For example:

- An Australian study conducted in the ACT estimated hospitalisation costs of early weaning (based on five conditions — gastrointestinal illness, lower

respiratory infection, otitis media, eczema and necrotizing enterocolitis)¹ to be between \$1–2 million per year in that territory (Smith et al. 2002).

- A Spanish study looking at the effect of breastfeeding on the probability of hospitalisation as a result of infections during the first year of life found that 30 per cent of hospital admissions could have been avoided for each additional month of full breastfeeding. Also, that 100 per cent exclusive breastfeeding among 4 month old infants would avoid 56 per cent of hospital admission in infants in the first year of their life (Talayero et al. 2006).
- A US study covering three illnesses (lower respiratory tract illness, middle ear infection and gastrointestinal illness) found that for every 1000 babies never breastfed, compared with 1000 babies exclusively breastfed for three months, there were 2033 extra visits to the doctor, 212 extra days of hospitalisation and 609 extra prescriptions in the first year of life (Ball and Wright 1999).

As noted by Weimer (2001), the sizeable health care costs for most of the studies cover just a few infant illnesses and consequently are likely to underestimate the costs attributable to early weaning or not breastfeeding.

Leon Cava et al., on reviewing the evidence on the benefits of breastfeeding, concluded that the economic costs of not breastfeeding, while greatest for poor households and poor countries, were also significant for developed countries:

... apart from being the safest and healthiest infant feeding method, breastfeeding is also the least expensive. ... This is especially true when the unanticipated cost of health care for the sick infant takes its toll.

When the cost of medical care is borne by the health system or insurers, the economic impact is felt at that level. When infant illness requires mothers to miss work, employers and the economy are also affected. Although the economic costs of not breastfeeding generally are considered to be greatest for poor households and poor countries, the evidence summarized here suggest that the impact in developed countries is also serious. (Leon Cava et al. 2002, p. 4)

Employment and breastfeeding

While the biomedical literature suggests there can be significant benefits for infants, children and mothers from breastfeeding (particularly if exclusively for six months), this is of little importance if paid parental leave does not affect breastfeeding behaviour.

¹ Conditions including diarrhoea, gastroenteritis, otitis media (ear infection) and respiratory infection are primary causes of hospitalisation in infants aged less than 1 year and in children aged one to four in Australia. They are also among the main conditions presented to general practitioners.

Many mothers expressed concern that on returning to work they had to give up breastfeeding even though they considered it too early for their child's wellbeing. One mother, for example, said:

My workplace was very supportive of me breastfeeding and expressing using the first aid room. I also left during my lunch break to breastfeed her at lunch and return to work. But physically working full-time and breastfeeding, I couldn't do it. After a week I knew that I had to wean her. By the time she was six months old she was fully weaned from breastfeeding and it broke my heart to do it. But for financial reasons and because I don't receive any paid leave, I had to return to work and I had to return full-time. (trans., p. 51)

In the absence of paid leave, mothers may return to paid employment earlier than they would like and this could undermine the health and well-being of both the child (by affecting breastfeeding duration) and the mother. As Galtry and Callister said:

... in those situations where parents are totally dependent on their own financial means, the optimal length of parental leave may be quite different than what appears to be 'best practice' based on medical and other research. (Galtry and Callister 2005, p. 224)

Does returning to work impact on breastfeeding initiation and duration?

Some studies suggest that returning to employment has little or no impact on breastfeeding initiation (Lindberg 1996, Dennis 2002). Others, however, indicate that women who return to work after only a brief period of leave are less likely to initiate breastfeeding (Nobel 2001, Chatterji and Frick 2003, Hawkins et al. 2007, Guendelman, Lang et al. 2009). For example:

- A UK-wide longitudinal study found that mothers returning to employment within 4 months of having an infant were less likely to initiate breastfeeding (69 per cent) than those who returned later — 75 per cent at five or six months and 80 per cent at seven months or later. Mothers returning to work for financial reasons were found to be 4 per cent less likely to initiate breast feeding than mothers returning for other reasons (Hawkins et al. 2007).
- A recent study undertaken in California found maternity leave of less than six weeks or six to 12 weeks to be associated with a fourfold and twofold higher odds, respectively, of failure to establish breastfeeding (also an increased probability of cessation after successful establishment) relative to those women taking longer leave or those who had not returned to work (Guendelman et al. 2009).

While paid work and breastfeeding need not be mutually exclusive activities, breastfeeding is a time-intensive activity that requires mothers either to be with their babies to feed them or to be able to express and store milk that can be used later.

Frequent feeding or expression of milk (particularly when exclusively breastfeeding) is also necessary to maintain a mother's milk supply (NHMRC 2003, p. 10). The earlier a mother returns to work the more frequently she will have to feed her baby or express milk and this can make establishing and continuing to breastfeed difficult (see box 4.6 for participants' personal experiences and comments).

International and Australian evidence suggests that the duration of breastfeeding is influenced by a woman's decision about returning to work, with some studies pointing to the importance of flexibility and part-time hours for combining work and breastfeeding. For example:

- Lindberg 1996 found that women (particularly those returning to full time employment) tend to stop breastfeeding in the month they return to paid work and concluded that maternity leaves of 'at least six months' would be required to achieve the recommended six months of breastfeeding.
- A US study (using data from the National Longitudinal Survey of Youth) found that among mothers who initiated breastfeeding, returning to work within three months reduced the length of breastfeeding by four to six weeks. The authors concluded that 'the magnitude of the associations we find are large and important from a public health perspective' (Chatterji and Frick 2003, p. 26).
- An Australian study (Cooklin et al. 2008), using LSAC data found that fewer employed women were breastfeeding their infants at six months (39 per cent for women employed full-time and 44 per cent for women working part-time) than women not in paid employment (56 per cent). The lowest proportion of infants receiving breast milk at six months were those whose mother had resumed full-time employment either before three months (42 per cent) or between three and six months after the birth (39 per cent). Cooklin et al. concluded that:

Results from this large representative cohort of Australian infants confirm that maternal employment in the first 6 months of life contributes to premature cessation of breastfeeding even when known risk factors of breastfeeding cessation are controlled for. (Cooklin et al. 2008, p. 620)

- Another recent Australian study (Baxter 2008b), also using LSAC data, found that:
 - mothers not working, on leave or working 1-14 hours had the highest breastfeeding rates — around 16 per cent higher than mothers working 15 hours or more
 - working women with flexible hours had breastfeeding rates 10 per cent higher than those without flexible hours

Box 4.6 Working and breastfeeding — participants' comments

Susan Kay:

Many people believe that if the mother isn't strapped to the baby then breast feeding isn't possible. This is completely false. I work full time and my husband brings my daughter into me twice a day for a feed. It takes no more than 15 minutes at a time and I just work the extra half hour to make up for the feeding time. (sub. 29, p. 1)

Hilary Surman:

Financially, because of the unavailability of paid maternity leave and my income being the primary one, I had to return to work when my baby was seven months old. This was difficult not only emotionally but also practically because I wanted to keep breastfeeding until the baby was twelve months. I have managed to keep breastfeeding by leaving expressed milk and expressing at work. You can image it is very difficult to express milk at work. There are no facilities available. Non-standard shift patterns added to the difficulties. (sub. 35, p. 1)

Personal response:

I am a doctor and mother of 2 young boys aged 2 and 4. I had no access to paid maternity leave. I saved for my time off and recommenced work 4 months after the babies were born. I worked part-time, I was still breastfeeding so I had to express milk and freeze it so that I could continue to have the children exclusively breastfed for the first 6 months of their life.

CPSU, a members personal experience:

I returned to work when my baby was 5 months old – still feeding her. I had to express at work with no facilities available to me. I ended up with mastitis and was advised by Dr to stop feeding her altogether. As a result she went straight to bottles and she ended up ill herself. (sub. 160, p. 10)

The Australian Family Association:

Some highly committed mothers manage to combine early return to work with continued breastfeeding. Such women require supportive workplaces. In many instances, the AFA believes that highly motivated employers might better accommodate the nursing mother by accommodating her baby in the workplace as well. (sub. 205, p. 10)

Some participants indicated that their workplaces were not suitable for mothers to breastfeed. Unions NSW, for example, said:

... many workplaces will never be a site suitable for a woman to breastfeed. Amongst our membership, rail guards, construction sites, truck drivers and many factories, are not suitable for young children. The only way to ensure that these women can breastfeed their children for 6 months is to ensure they have the paid leave and support to do so. (sub. 181, p. 7)

IEUA:

... further to flexible return to work options, women should have access to breastfeeding facilities such as access to a private room and refrigeration as well as work breaks. In some shameful situations, IEUA members are required to express breast milk in the toilet facilities of staff rooms as there are no other private facilities available. (sub. 72, p. 9)

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- 50 per cent of working women with a baby under 6 months old were still breastfeeding — only slightly lower than those not employed and not on leave.
 - self employed women were more likely to breastfeed than other employed mothers
 - for employed women where child care was only provided by themselves or the baby’s fathers, breastfeeding rates were 10 per cent higher than for employed women using other forms of child care.

Baxter concluded that ‘it is important that opportunities be explored for continuing to encourage breastfeeding-friendly workplaces. Shorter work hours and flexible work hours are particularly related to higher breastfeeding rates’ (Baxter 2008b, p. 26).

There is also some evidence that parental leave increases the duration of breastfeeding. A UK survey of Infant Feeding found that the proportion of mothers mentioning return to work as a factor behind giving up breastfeeding was lower in 2005 than in 2000 and it was noted that ‘this is consistent with longer maternity leave entitlements in 2005 compared with 2000, and suggests some mothers have been helped to breastfeed longer’ (Scientific Advisory Committee on Nutrition 2008, p. 21). Roe et al. 1999, found that an additional week of leave increased breastfeeding by almost one half of a week. Also, that mothers not in paid employment tend to feed their infants more feeds than those returning to work, a finding that may have implications for exclusive breastfeeding.

Baker and Milligan (2008b) found that increases in paid maternity leave in Canada (from six months to around a year in 2000) increased the time mothers spent at home with their infants by three to three and a half months and the longer period at home affected breastfeeding duration. Breastfeeding duration increased by over a month and the proportion of women exclusively breastfeeding for six months increased by almost 40 per cent.

That said, on self-reported indicators of maternal and child health, Baker and Milligan found little or no effect from the increase in breastfeeding duration. While finding some evidence of beneficial impacts on asthma, allergies, chronic conditions and ear infections at ages seven to 12 months, sensitivity testing raised doubts about their ‘robustness, persistence and relation to breastfeeding/increased maternal care’ (Baker and Milligan 2008b, p. 884).

Complementary measures to encourage breastfeeding for longer

Resuming work, however, is not the main reason given by Australian women for discontinuing breastfeeding. It comes in as the fourth main reason behind: problems in producing adequate milk (30 per cent); felt it was time to stop (23 per cent); other problems with breastfeeding (10 per cent). Just 8 per cent of mothers gave resuming work as the reason for discontinuing breastfeeding (ABS 2003).

Only a very small percentage of mothers, however, are unable to produce adequate milk supply for their infants and the perception of low milk supply is often based on a lack of confidence or understanding of the normal physiology of lactation (Royal Australian College of General Practitioners). According to Australia's National Health and Medical Research Centre:

... for the remainder of women who prematurely terminate breastfeeding, there are numerous causes — both biological and psychological — the majority of which are temporary and can be resolved with experienced advice or avoided by better preparation, hospital management or appropriate support. (NHMRC 2003, p. 8)

What this suggests is that paid parental leave by itself is likely to be only partly effective in increasing breastfeeding duration with complementary measures also playing an important role in improving the prospects that paid parental leave will encourage mothers to breastfeed for longer (appendix H).

There are a number of published reviews of interventions to promote breastfeeding initiation and duration, including several Cochrane Reviews, reviews by the US Preventative Services Task Force, the World Health Organization and NSW Health (Dyson, et al. 2005, Britton et. al 2007, Chung, et. al. 2008, Oliveira, et al. 2001, WHO 1998, Hector, King and Webb 2004).

The systematic reviews and meta-analyses of interventions to promote and support breastfeeding indicate that:

- breastfeeding interventions are more effective than routine care in increasing short and long term breastfeeding rates
- a variety of educational formats are effective in improving rates of initiation and short-term duration of breastfeeding (although not all studies find education to be effective), with one-to-one education and/or small group programmes appearing most effective. The isolated use of written materials is consistently shown to be ineffective and may be detrimental
- both peer and professional support strategies are effective in increasing duration and exclusivity of breastfeeding. These forms of support appear to be particularly effective in areas where initiation and continuation of breastfeeding is not high

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- strategies that depend mainly on face-to-face support are more effective than those that rely primarily on telephone contact and the effectiveness of support is enhanced by home visits
 - postnatal support by a health professional and/or trained peer counsellors (such as parenting groups, face-to-face contacts and home visits) appears effective in promoting the duration of breastfeeding
 - health service policy and professional training can be important in enabling the consistent and integrated adoption and implementation of recommended practices (including the Baby Friendly Hospital Initiative and the WHO's Ten steps to successful breastfeeding)
 - combining prenatal and postnatal interventions and inclusion of lay support in a multi component intervention may be beneficial.

There is also some evidence that early skin-to-skin contact between baby and mother, rooming-in babies and avoiding inclusion of infant formula or material marketing infant formula in commercial hospital discharge packs, can be effective in improving breastfeeding initiation and short-term duration (Moore, Anderson and Bergman 2007, Rosenberg, et al. 2008, WHO 1998).

While the systematic reviews provide some insights into the effectiveness of interventions to promote breastfeeding, considerable gaps in the evidence remain, particularly for strategies related to public policy, supportive environments (such as interventions in the workplace to support breastfeeding and physical facilities in public places) and community action. There are also gaps in the evidence in terms of the effectiveness of strategies that specifically support breastfeeding continuation between three and four months, and strategies for promoting exclusive breastfeeding up to six months and breastfeeding beyond the six month period (Abulwadud and Snow 2007, Hector, King and Webb 2004).

The Australian Government currently funds a range of initiatives to support breastfeeding, including:

- in the 2008-09 Budget, the Australian Government provided \$2.5 million over five years to the Australian Breastfeeding Association to expand its communications infrastructure to create a national 24 hour breastfeeding helpline service at no cost to callers
- \$1.8 million over four years to support education and the provision of information resources, as well as health professionals training and support. The Australian Breastfeeding Association has been contracted to develop breastfeeding education for health professional and nationally recognised courses for Breastfeeding Helpline volunteers

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- \$1.15 million over four years for research to support breastfeeding and improved data collection, including
 - an Australian National Infant Feeding Survey that will interview a representative sample of families with young babies, provide data on the prevalence and duration of breastfeeding, explore the barriers to initiating and continuing to breastfeeding, and collect data on other foods consumed by Australian infants
 - a qualitative research project looking at attitudes towards, and perceptions of, breastfeeding among mothers, pregnant women, their partners and health professionals
 - developing dietary guidelines for pregnant and breastfeeding women and reviewing the 2003 Dietary Guidelines for Children and Adolescents incorporating the Infant Feeding Guidelines for Health Workers.
 - *New Directions: An Equal Start in Life for Indigenous Children* which includes \$112 million for maternal and child health programs including access to antenatal care, information about baby care (including breastfeeding), advice and assistance with parental monitoring of developmental milestones and testing of Indigenous children’s hearing, sight and speech before starting school (Australian Government 2008b, Department of Health and Ageing 2009).

In the draft report, the Commission recommended that the Australian Government provide more resources to allow effective support for breastfeeding. This recommendation received support from a number of participants. For example, the Tasmanian Women’s Council said:

As noted by the Commission, only two thirds of Australian mothers still breastfeed their babies at three months of age. While the Australian Breastfeeding Association and child health clinics around Australia do a wonderful job to encourage and support mothers who breastfeed, many women who are breastfeeding cannot continue to do so once they return to work. Providing more resources in this area, concurrent with paid parental leave will no doubt have a great impact on encouraging and supporting women who breastfeed. (sub. DR307, p. 12).

The Australian Breastfeeding Association supported the recommendations relating to breastfeeding support in ‘The Best Start’ inquiry into breastfeeding:

Providing support for breastfeeding is complex and needs a multifaceted approach. Accordingly, we strongly encourage the Commonwealth to enact the recommendations from the Standing Committee on Health and Ageing report on the inquiry into the health benefits of breastfeeding entitled ‘The Best Start’ (2007). These recommendations are consistent with providing the necessary support for mothers to continue to breastfeed. (sub. DR391, p. 5)

The report of the maternity services review, *Improving Maternity Services in Australia*, released in February 2009, also indicated that a number of submission to that inquiry suggested the need for increased support for breastfeeding:

The need for more extensive professional postnatal support, specifically in the first 10 days postnatally, was raised with the Review. In particular, a number of submissions suggested the need for greater professional support in initiating and establishing breastfeeding, including greater access to support from midwives, including those trained as lactation consultants. (Department of Health and Ageing, 2009, p.34)

In December 2008, the Australian Government responded to the House of Representatives Standing Committee on Health and Ageing report, *The Best Start on the Inquiry into the Health Benefits of Breastfeeding*, and agreed (amongst other things) to:

- provide national leadership in supporting and promoting breastfeeding by inviting State and Territory Governments, through the Australian Health Ministers' Conference to collaborate on the development and implementation of a National Breastfeeding Strategy
- pursue in the context of developing a National Breastfeeding Strategy
 - the establishment of a basic set of indicators and definitions as the basis for a system to monitor breastfeeding trends in Australia
 - priorities for evaluating best practice in programs that encourage breastfeeding, including education programs and coordination of these programs
 - a targeted national education campaign to reach mothers who are less likely to breastfeed without additional encouragement and support.

In light of the Australian Government's current initiatives and recently announced response to the *Best Start* report the Commission is not recommending additional complementary support for breastfeeding. The National Breastfeeding Strategy should be the basis for more effective breastfeeding support — and if warranted over time — for more resourcing. The Commission supports evidence-based policy for improving breastfeeding support and considers that areas where further research may be warranted include support services for promoting duration and exclusivity of breastfeeding in the first month after birth and beyond three months (the periods when breastfeeding rates decline rapidly), and the effectiveness of supportive environments (particularly breastfeeding-friendly workplaces). The maternity services review, *Improving Maternity Services in Australia*, also recommended that:

... in order to lengthen the duration of breastfeeding, further evaluation be undertaken to identify the health care or community settings in which breastfeeding information and support are most effectively received, with a particular priority on consulting and

supporting women from diverse cultural and socioeconomic backgrounds. (Department of Health and Ageing, 2009, p. 39)

Improving co-ordination and continuity of service between prenatal breastfeeding support, hospital strategies and postnatal support (which could be addressed under the National Breastfeeding Strategy and the National Maternity Services Plan) may also go some way towards encouraging continuation of breastfeeding in Australia.

Evidence on breastfeeding — where does it leave us?

Existing paid maternity leave schemes, combined with other forms of leave (such as long service leave and annual leave), already reduce some of the pressure on mothers to return to paid work (and to reduce breastfeeding duration) in the period immediately after childbirth. It is among those mothers who are ineligible for paid maternity leave that you would expect to see the greatest differences between when mothers are returning to work and when they consider it is in the best interests of their child (including when they stop breastfeeding). Women who do not receive paid maternity leave and women who are self-employed return to work more quickly than those eligible for paid leave. Self-employed mothers, however, tend to have access to more flexible working arrangements, and are in fact more likely to be breastfeeding their infants at three months than those mothers who had not returned to work (80 per cent of self-employed mothers compared to 73 per cent of those mothers who hadn't returned to work, LSAC data). At six months, as many self-employed mothers were feeding their infants as those mothers who had not returned to work.

The impacts of relatively short statutory paid leave provisions (say 12–14 weeks) are uncertain but are likely to depend on the circumstances of particular women. Where such a paid leave scheme is taken at half-rate or enables a woman to extend a period of self- or employer-funded leave, then it may promote a significant increase in breastfeeding duration. That said, many of the women returning to work early are on relatively low wages and may not be able to afford to take paid leave at half pay. A longer period of paid parental leave (say 18 weeks) is likely to result in women on relatively low wages extending their leave to the full period of parental leave, that together with other funding options (such as privately negotiated paid maternity leave, accumulated leave or private savings), would enable mothers to exclusively breastfeed for the clinically recommended period.

For mothers on higher wages and those facing fewer financial constraints, the additional time spent on leave is likely to be less than those currently going back to work before they would like because of financial constraint. That said, an extended period of paid leave may see these mothers taking slightly longer periods of leave

and breastfeeding for longer. For some mothers, paid leave will not change the period of leave taken — hence breastfeeding duration is likely to remain unchanged.

Moreover, even for those parents who can take off sufficient time from work to care for their children, the period after the birth of a baby, and the interruption of family income that often entails, can involve financial hardship. The Commission heard from many participants about the financial hardships faced while on unpaid parental leave and the stress this places on families. A number of participants contemplating having a family also expressed concern about how they would cope financially on reduced income for the period of the mother's absence. One participant said:

Please take the financial strain off new families to let them enjoy this time together without the stress of making ends meet. (personal response)

The National Foundation for Australian Women also said:

... women's ability to take the full period of unpaid leave is constrained by financial circumstances. Families with tight budgets, such as those with older children and high mortgages, and those where the woman's earnings are a significant part of family income are likely to suffer severe hardship from the loss of one partner's earnings for 6 to 12 months. (sub. 54, p. 17).

According to LSAC data, mothers taking four to six months leave around the birth of their baby were more likely to report financial constraints as influencing an early return to work (or a decision not to take a longer period of leave) than mothers taking three months leave. And, mothers taking six to 12 months leave were more likely to report difficulty maintaining household income than those taking shorter periods of leave. What this suggests is that financial constraints tend to become more binding as the duration of leave increases (this most likely reflects the erosion of financial reserves with time away from paid employment).

While the Commission does not regard addressing financial hardship as a key objective of a paid parental leave scheme (as discussed in chapter 1 if financial assistance was a key objective by itself this could be addressed by increasing family payments), nevertheless, an important incidental benefit of a scheme designed to encourage parents to spend more time at home with their infants is that families suffer less financial and other associated stresses during the postnatal period. And, this has a beneficial impact on child and family welfare (the evidence suggests that income is, by itself, is an important predictor of child wellbeing). Accordingly, a paid parental leave scheme may generate improved health and welfare outcomes even for those families whose time spent at home is not affected by the scheme.

4.4 Child health (breastfeeding aside) and development

Better child health outcomes with more generous leave

By allowing mothers (and, or fathers) to stay home and care for their infants, parental leave may be expected to result in improved health and development outcomes for infants. And, there is some evidence to suggest that longer periods of paid parental leave are associated with reduced rates of infant mortality. Cross-country studies (OECD countries) by both Ruhm 2000b and Tanaka 2005, found that a ten-week extension in paid leave has the potential to reduce infant mortality by around 2.5 per cent. Ruhm (2000b, p. 933) concluded that ‘parental leave may be a cost-effective method of bettering child health’; also that parental time is ‘an important input into the well-being of children’.

Both these studies found that paid leave had the strongest effect on post-neonatal mortality deaths (between 28 days and one year). Tanaka found that a ten week extension in paid leave had the potential to decrease post-neonatal mortality rates around 4 per cent. Unpaid leave was not found to have a significant effect:

... if leave is provided without adequate payment and job protection, parental leave-taking behaviours may not be very responsive and may result in mothers’ early return to work. As a result, other leave does not have a significant effect on improving infant health. (Tanaka 2005, p. F26)

Improved health outcomes in the infancy period are attributed to rates of immunisation, check-ups with health care professionals and breastfeeding. For example, infants of mothers returning to work in the first six weeks are less likely to have regular medical check-ups in the first year of life, less likely to receive timely vaccinations and less likely to be breast-fed (Berger et al. 2005).

A symposium on parental leave, early maternal employment and child outcomes in the *Economic Journal* concluded that:

Children whose mothers stay out for more than 12 weeks are more likely to be breastfed, are breastfed longer, are more likely to be fully immunised and are more likely to receive recommended preventative (well baby) care. The policy implications of this finding is clear: extending paid job-protected maternity leave will lead to improvements in child health. How large the gains are will depend on what the leave entitlement is currently and how long the extensions are. (Gregg and Waldfogel 2005, p. F4)

Child development

On child development, the evidence suggests that both parental employment (by reducing the risk of poverty) and personal parental care (up to an age at which it is not entirely clear) are good for child wellbeing. As the OECD recently noted, a key issue in the parental leave debate is how to strike the right balance between parental employment and parental care in the early years of a child's life:

Parental employment reduces the risk of poverty and it thus reduces the likelihood of poverty and deprivation damaging child development. Personal parental care enhances child development, but when children start to learn from interactions with their peers, good-quality care provided by professional carers can also enhance child development. (OECD 2007, p. 109)

A number of participants argued for an extended period of paid parental leave (up to two years) on the grounds that exclusive parental care or continuous interactions with a single primary caregiver in the early stages of life is 'crucial' for healthy brain development and providing a solid foundation for future health and learning. Some participants went as far as suggesting that an extended period of leave is the most important investment that governments can make to support child wellbeing and development (box 4.7).

What do we know about child development in the early stages of life?

The science of early childhood development tells us that the first years of life are fundamental to the formation of healthy brain architecture, with experiences during this time helping to shape a child's future health and wellbeing. With sophisticated new technologies and focussed research on brain chemistry, much has been learned over the last few decades about the mechanisms through which the capabilities of a young child's brain expands, including the extent to which different types of experiences count towards a child's cumulative development over time (Mustard 2006).

The human brain is made up of billions of neurons that are connected via synapses to create neural pathways that communicate with each other to perform a specific range of functions including, for example, vision, hearing, language and behaviour. The early childhood period is a time of rapid brain development in terms of synapse formation and also when neural pathways (and the expression of genes) are particularly sensitive to the dose and range of experiences provided by a child's environment. This makes early childhood a period of simultaneous opportunity for enrichment and vulnerability to harm.

Box 4.7 The importance of primary carers — participants' views

A number of participants stressed the importance of parental care (or care by another primary caregiver) in the initial phase of a child's life:

- The NSW Commission for Children and Young People argued for a minimum of 12 months paid parental leave with a preference for 2 years, based on the evidence on child development and the importance of continuous nurturing interactions over the first years of life:

There is a significant amount of evidence that paid maternity leave can provide major benefits for babies as it gives time with their mothers at a crucial phase in a child's early years of development. Supporting parents so they can nurture their babies and young children is shown to have significant immediate as well as long term benefits for children's wellbeing, their families and society. ... parental leave greatly enhances the amount of time spent in face-to-face and organised activities that promote an infant's social development and emotional regulation. (sub. 234, p. 1).

- Early Childhood Australia proposed a paid parental leave duration of 12 months, stating that:

... strong relationships and secure attachments are possible in very high quality [child care] services but for the general population are much more likely in the context of paid parental leave. (sub. 237, p. 5)

- YWCA support a minimum period of 9 months paid parental leave to enable family units to achieve maternal, child and family welfare objectives as well as broader social and economic welfare objectives. They stated that there are:

... benefits of care of a very young child by immediate family members. (sub. 84, p. 11).

- The Australian Association for Infant Mental Health refer to infancy as a critical period for development, noting that babies are emotionally reliant on a consistently available caring adult:

Infant mental health begins with the relationship between the infant and his or her main carer, usually, but not necessarily the mother. (sub. 25, p. 2).

- NIFTeY also suggest that at least 1 year of leave is necessary to meet the needs of children since:

The drivers of the earliest development are stable, secure attachments to a few adult carers, especially the mother ... [and] in general, the best way to ensure that earliest developmental needs are met is to support parents in meeting them. (sub. 55, p. 2).

As the National Scientific Council on the Developing Child put it:

The foundations of brain architecture are established early in life through a continuous series of dynamic interactions in which environmental conditions and personal experiences have a significant impact on how genetic predispositions are expressed. Because specific experiences affect specific brain circuits during specific developmental stages — referred to as sensitive periods — it is vitally important to take advantage of these early opportunities in the developmental building process. That is to say, the quality of a child's early environment and the availability of appropriate

experiences at the right stages of development are crucial in determining the strength or weakness of the brain's architecture, which, in turn, determines how well he or she will be able to think and to regulate emotions. (National Scientific Council on the Developing Child, 2007b, p. 1)

The early childhood period is also important because each stage of neural pathway development rests on another, so that the complexity of brain circuitry, and in turn, its ability to perform a range of complex functions — such as movement, coping, language, cognition and biological processes — build over time. Because of this hierarchy, if lower level circuits are not wired correctly, the development of higher level circuits may be jeopardised. The research suggests that making corrections at later stages is often more difficult:

Getting things right the first time is more efficient and ultimately more effective than trying to fix them later. (National Scientific Council on the Developing Child 2007, p. 12)

But there is also the countervailing effect of brain plasticity — the ability of the brain to change with learning. If a child is not sufficiently exposed to 'brain building' experiences during particular developmental phases, there may still be scope to intervene to restore a normal brain architecture and mitigate any detrimental effects on future learning. The evidence suggests that for human brain growth, previously thought-rigid sets of experiences that are critical for development are the exception rather than the norm (National Research Council and Institute of Medicine, 2000; *From Neurons to Neighbourhoods 2000*, p. 183). Indeed, neural pathways will either be maintained, strengthened or pruned over time according to the ongoing interactions between a child's genetics and new experiences. That said, while brain plasticity is retained into adulthood, not all parts of the brain are equally plastic (some neural pathways that are highly plastic around birth remain so only for a short window of time).

The importance of quality interactions for early brain development

The role of a primary caregiver is considered to be particularly important during the early childhood period, with the continuous interactions they provide affecting the rate of early brain development and the ability of the child to self regulate their emotions and 'attend' to the world. An emphasis is placed on the reciprocal nature of continuous interactions between a caregiver and child, based on shared gaze, vocalisations, touch and smell, so that:

... both members of the dyad enter into a symbiotic state of heightened arousal. (McCain, Mustard and Shanker, 2007, p. 27)

The nature of the relationship of young children to their parents and other care givers is dynamic, and often described as a 'serve and return' process where infants

seek out interaction through babbling, facial expressions, words, gestures, and cries, which an adult responds to, and so the process continues back and forth. As the National Scientific Council on the Developing Child said:

Growth-promoting relationships are based on the child's continuous give-and-take ('action and interaction') with a human partner who provides what nothing else in the world can offer — experiences that are individualized to the child's unique personality style: that build on his or her own interests, capabilities, and initiative; that shape the child's self-awareness; and that stimulate the growth of his or her heart and mind. (National Scientific Council on the Developing Child, 2004, p. 1)

It is via these endless interactions between a child and caregiver that a child's self regulatory system is said to become fully functional, but they are also said to be important for the caregiver since their 'mindreading' abilities are not innate and can 'only be attained through countless caregiver-child interactions that nature designed us to experience in the first year of a baby's life' (Greenspan and Shanker 2004; sub. 234, p. 7).

Of course, experiences can also be negative, including exposure to maternal depression, family violence and poverty, which can affect brain structure and have future implications for the building of relationships and wellbeing more generally. Outcomes that are often attributed later in life to adverse early childhood experiences include, but are not limited to, depression, anxiety, post traumatic stress, aggression, hyperactivity and substance abuse (Teicher 2003).

Stability of care providers is thought to be particularly important for young children as care needs to be responsive to changes in each child's development status (which is most rapid in early childhood). This may be difficult to achieve if caregivers are not sufficiently familiar with the infant's individual needs and the infant is not accustomed to reading the particular signals of their caregiver so as to feel supported and able to attend to their surrounding environment. Some argue for extended periods of maternity leave on the grounds that the constant changing of child care providers (particularly in formal care settings) does not support a child's sense of security and ability to build future relationships (What About the Kids, 2006, p.10). Others suggest that long hours of infant care (more than 10 hours) can disrupt a mother's attachment to her child (NIFTeY sub. 55).

What does the empirical analysis tell us?

Most of the more recent evidence tends to support the view that the use of *non-parental* care/child care (usually necessitated by maternal employment) when initiated within the first year of a child's life can contribute to behavioural problems and, in some contexts, delayed cognitive development (Han et al. 2001; Hill et al.

2001; Waldfogel et al. 2002; Brooks-Gunn et al. 2002; Baker et al. 2005). Evidence of problems is generally stronger when child care is initiated very early (3 to 4 months or less), when maternal employment is full-time and when the child care arrangement is for long hours and of low quality.

The evidence is mixed, however, with some studies not finding maternal employment or child care to be detrimental for various measures of child development across a range of ages, including within the first year of a child's life. But, the emergence of positive effects (mostly cognitive) from early child care experiences tend to be confined to situations where:

- child care is initiated at least after six months of age (NICHD 2000)
- maternal interactions remain sensitive and responsive (NICHD 2006)
- maternal employment is not full-time (Berger et al. 2005; Gregg et al. 2003).

For children aged around one year or older, the empirical work focussing on the effects of maternal employment and child care is more divided about the magnitude, or even direction, of the effects on child wellbeing. Some studies find that many of the potential risks associated with the use of child care for younger children are less evident as the age of the child increases, especially if the care is of high quality:

... cumulative experience in high-quality, centre-based care starting in the second year of a child's life may be particularly beneficial for cognitive development (From Neurons to Neighbourhoods, p. 312).

But, agreement about the point in time that these benefits start to kick in is not well established by the existing body of evidence. For example:

- maternal employment when children are one to four years old has been associated with small positive outcomes (Joshi and Verropoulou 2000)
- full-time maternal employment when a child is less than 18 months old has been found to have negative effects on cognitive and behavioural measures of child development, but where employment was part-time or initiated after 18 months, no detrimental impacts were evident (Gregg and Washbrook 2003).

There is more consistent evidence, however, that children across a range of ages who suffer from a particularly non-stimulating or impoverished home environment can benefit from child care. For example, in the case of maternal depression, the sensitivity of the mother's interactions with her infant may be improved with high quality child care use.

For those studies finding evidence of detrimental impacts from a mother's employment and the use of child care, the size of the impact is typically small on average, and often not statistically significant. Variance in child wellbeing is

generally more strongly predicted by a range of family characteristics including, for example, household income, maternal education and psychological adjustment, parenting quality and child rearing attitudes (NICHD 2006; Belsky et al. 2007).

Regardless of how small, however, any adverse effects of non-parental care, when experienced by a large number across the population, are not trivial and may have broad scale consequences over time. Also, small negative effects that are enduring may be especially significant, since they may result in future levels of achievement lower than might otherwise have been attainable.

The OECD recently summed up the evidence on child development and parental care by stating that:

Taking stock of the evidence, it seems that child development is negatively affected when an infant does not receive full-time personal care (breastfeeding issues aside...) for at least the first 6 to 12 months of his/her life. Cognitive development of a child benefits from participation in good-quality formal care (and interaction with its peers) from age 2-3. This generalisation of the evidence stands or falls with the quality of formal childcare, but as formal care and education is supplementary to parental care, also with the intensity and quality of interactions at home: the positive effects of formal care are biggest for children in disadvantaged families. (OECD 2007, pp. 110–111).

The symposium on parental leave, early maternal employment and child outcomes in the *Economic Journal* also concluded that:

... it appears that longer periods of leave are associated with better health outcomes for women and infants, and could potentially lead to better developmental outcomes as well. But, convincing empirical evidence regarding causal links between maternity leave, early maternal employment, and child outcomes is lacking. (Gregg & Waldfogel, 2005, p. F33).

The effects of maternal employment and child care for cognitive, behavioural and health outcomes in particular are discussed in further detail in appendix D.

What do we know about non-parental care in the early years?

On balance, the evidence points to a greater potential for negative effects on child development if a mother's return to employment is made before three to six months and the child is in non-parental care for extended periods of time. There appears to be a greater potential for positive effects if a return to employment is made between 12 to 18 months. This results in a window of apparent uncertainty that is not informed by current evidence (the six to twelve month period).

What we do know, however, is that in Australia:

- the majority of babies are not in regular non-parental care. Just under two-thirds of infants are cared for at home by their parents in their first year of life (ABS 2005)
- of those babies who are in care, most are in informal care, usually with grandparents (at least for the first year of life)
- parents balance their work and family responsibilities by reducing the number of hours in paid employment. Most Australian mothers return to employment on a part-time basis. This means that the use of child care in the early stages of a child's life is usually not extensive.
- an important factor in the hours that an infant is in formal care is the number of hours worked by the mother. If more than 20 hours of non-parental care is used, the use of centre-based care tends to increase. If fewer than 20 hours care are required, grandparents typically provide the care, particularly if the mother returns to work within six months of having a child.
- a mother's employment usually encroaches less on the time and interactions made available to her children than might be expected (Bittman, Craig and Folbre 2004; Nock and Kinston 1988; Bianchi 2000). Australian data shows that the reduction in a mother's time spent with her baby due to employment is only 2 hours per day on average. Mothers working full time spend on average 3.7 hours less with their baby a day (Baxter et al. 2007).

That said, a significant proportion of infants are placed into formal child care early in life, and sometimes for extended periods of time. According to LSAC data, of those mothers returning to work within six months, 14 per cent of infants are in child care for more than 31 hours or more per week and around 13 per cent are in child care for between 21–30 hours (appendix D).

LSAC data also shows that household income is positively associated with the use of non-parental child care — the percentage of infants in child care for more than 20 hours where the mother returned to work within six months was 45 per cent for families with household income greater than \$100 000 compared with 31 per cent for households with income between \$50 000 and \$100 000. Where household income is less than \$50 000 extended hours of child care are rare.

The use of child care is much more prevalent for children over 1 year of age, with around 60 per cent of children aged between one and two participating in child care (ABS 2005c). And, while there is greater use of formal care arrangements (usually centre-based day care) at this age, formal care use is at its highest when children are aged two to three, with just over 70 per cent in formal care arrangements.

A number of participants to this inquiry argued that formal child care (with the current one adult for every five infants) in Australia is not of sufficiently high quality to substitute for parental care for infants under 12 months (see, for example, Early Childhood Australia, sub. 237, p. 3, Australian Family Association, sub. 205, p. 24).

The evidence suggests that the quality of child care is important for child development, but measuring the quality of care is difficult. While indicators such as — caregivers' level of education, experience and specialised training/qualifications, number of children in groups, child-to-staff ratios — provide some insights into the quality of care, no single indicator is able to reflect the quality of interactions between staff and children. Ultimately, the prospect of a child's development being disadvantaged by non-parental care will depend on the quality of the care *relative* to that which would otherwise be provided by the mother.

What the evidence does show is that:

- adult-child ratios are associated with the quality of care provided (rarely, however, is causality established so it is not possible to specify how more carers per child results in better outcomes for child development, other than improving the probability of more interactions between carers and children). There is some evidence that the child-adult ratio is a stronger predictor of outcomes for infants than toddlers and older aged children, but most studies examine the effects of ratios for children aged 3-5 years and older (Cleveland et al, 2007; de Schipper et al. 2006).
- stability in care providers is strongly related to child outcomes (Loeb, Fuller et al. 2004; Huntsman 2008). This is largely because care that is responsive to changes in each child's developmental status is difficult to deliver if caregivers are not sufficiently familiar with the infant's individual needs and signals.
- a child's ability to make secure attachments may be reduced by high adult-child ratios. One study found a greater likelihood of an infant's secure attachment to their mother from an adult-child ratio of 1:3 versus larger ratios (Sagi, Koren-Karie, Gini et al. 2002).
- caregiver education and training is a better predictor of care quality than child-adult ratios (Burchinal, Howes and Kontos 2002). Higher levels of specialised training appears to be the most important contributor for infant children (Howes, Whitebook and Phillips 1992), but the statistical significance of formal teacher education has been questioned by recent studies that find no impacts on pre-reading or maths skills for pre-kindergarteners (Early et al. 2006).

That said, the few studies that have looked at the effects of increased maternal care (by expanding maternity leave) have not determined any noticeable improvements

in child development outcomes. Baker and Milligan (2008c) found no significant developmental benefits in children at age two from the increase in maternal care associated with increasing paid maternity leave in Canada from six to 12 months. Similar results, but for longer-term outcomes, were found by Dustmann and Schönberg (2008) when they looked at the effects of increasing paid maternity leave in Germany from two to six months and from six to ten months.

Parenting support programs

A number of participants to this inquiry, recognising the importance of positive interactions between infants and parents, called for increased support for parenting. The South Australian Government, for example said:

... to achieve strong early childhood outcomes, the interaction of parents with quality programs is of utmost importance. (sub. DR401, p. 4)

NIFTeY NSW said:

Paid parental leave and Parent and Child Centres are two sides to the one coin. The leave gives the parents, especially the primary care-giver, likely the mother, the time to engage with the baby in the endless interactions that facilitate new neural pathways in the brain that will build the baby's attachment to the mother, and shape the baby's emotional and intellectual development. Parent and Child Centres, with their array of inputs into building support for parenting, help the parental interaction to be most effective, and to assist parents when they need contact with others, reassurance, information and at times direction (sub. DR386, p 5)

There is some international evidence that parenting skills training reduces child behaviour problems, with post evaluations finding that these outcomes are generally maintained over time (Sanders et al. 2003, Antcliff 2007). The strongest effects are found for more targeted interventions (mostly directed at disadvantaged or 'at risk' families), with the usefulness of brief and universal parent-child support programs less clear and still the subject of ongoing research. For a further discussion of parenting support programs see appendix D.

There are currently in place a wide spectrum of programs in Australia that deliver services to many family types and children. There have been dozens of pilot programs or small-scale state or national programs that provide funding for support of families, including those with babies (for example, the National Good Beginnings Volunteer Home Visiting Program and the Families First Program and the Victorian Best Start program). Community groups funded by specific short-term grants often deliver services. Many programs target disadvantaged families though some at least aspire to have universal reach.

The patchwork of programs and varying evaluation methodologies make it hard to detect gaps and to work out what works well (Wise et al. 2005). The Commission’s initial impression is that government programs supporting parents with children under age two years are more fragmented and more poorly resourced than those aimed at older children. But the apparent ‘messiness’ of arrangements may not be a problem. Different communities may need different services, and variations in resourcing and program types across Australian jurisdictions may well be the kind of experimentation that reveals the best programs. Following the 2020 summit, the Australian Government flagged a plan for all-in-one centres to be made universally available for mothers and babies. While yet to be detailed in policy, the idea is that the centres would provide an ‘education passport’ for parents (Department of Prime Minister and Cabinet, 2008).

Overall, the Commission is uncertain of the desirability of additional support services for children aged less than 2 years old. Re-consideration of the issue since the draft has not changed this position. The Commission, however, considers it inappropriate to specify additional resourcing requirements or directions for policy without a robust evidential base.

Where does it leave us?

Overall, the evidence is most compelling that six months exclusive parental care fosters improved developmental outcomes. The greatest potential for negative effects from non parental care are when child care is initiated early (in the first three to six months of a child’s life), when the hours of child care are extensive and child care is of low quality. The evidence suggests positive effects from good quality care when a child is between 12 and 18 months old. But, the evidence is inconclusive for the period six to 12 months of age — the point at which cognitive development benefits from high quality care start to kick in is not well established. However, children facing disadvantage or at risk of less sensitive and responsive care in their home setting may benefit significantly from early exposure to high quality child care and from the extra income generated by their parents employment.

Given that the prospect of a child’s development being disadvantaged by non-parental care is dependent on the quality of the care *relative* to that which would otherwise be provided by the mother, knowing more about the quality of child care in the Australian context is worthwhile, but is one that is presently hamstrung by a paucity of data. If, for instance, generally high quality child care was available, the benefits from exclusive parental care in the six to twelve month period are likely to be more limited. Anecdotal evidence provided by participants to this inquiry, however, suggests that child care in Australia is not of sufficiently high quality to substitute for parental care for infants under 12 months of age.

That said, it is also worth noting that the limited studies looking at the counterfactual (longer periods of maternal care in Canada and Germany), do not find significant improvements in child development.

4.5 Fathers

Many submissions to this inquiry argued for a period of paternity leave (commonly a two-week paid leave period) to enable fathers to bond with their new baby, adjust to their new role and provide support to their partners. For example, the Human Rights and Equal Opportunity Commission, argued that:

The emotional wellbeing of fathers is another important benefit of a national paid leave scheme. New fathers typically bear a greater proportion of financial responsibility for the family following the birth of a child and fathers of infants work very long hours... Supporting parent leave for fathers promotes paternal bonding, assists fathers to adapt to fatherhood, and helps fathers to support their partners. (sub. 128, p. 22)

The Government of Western Australia said:

International best practice is to provide a provision for paternity leave, for the father or partner of the employee giving birth as a component of a paid paternity leave scheme. The provision of partner leave allows the non-primary care giver parent to remain at home with the child for a number of weeks immediately after the birth and facilitates parent/child bonding as well as supporting maternal health and recovery after the birth. (sub. 231, p. 13)

And, the Family Action Centre, University of Newcastle contended that:

Fathers develop their own attachment relationships which are important for their children's healthy development. It should not be assumed, for example, that the best model of parental leave is one which recognizes only the 'primary carer' and precludes mothers and fathers taking time together. Indeed, when up to one in five mothers may be experiencing postnatal depression it will be important to allow families to chose an arrangement which allows a father to support the mother and at the same time, form a crucial secure attachment with his infant. (sub. 34, p. 7)

Other participants' views on the benefits of paternity leave are provided in box 4.8.

Many participants argued that paternal leave should be on a 'use it or lose it' basis suggesting that unless a short specified period was exclusively designated for fathers, employers might tacitly discourage leave, and fathers would not take it. The Public Interest Advocacy Centre, for example, said:

Such leave should be compulsory and to be taken on a 'use it or lose it' basis. In countries that have adopted similar models, such as Norway, Iceland, Denmark and Sweden, leave taking by fathers has almost doubled in recent years. (sub 226, p. 10)

Box 4.8 Some views on the benefits of paid paternal leave

South Australian Men's Health Alliance:

Interpersonal relationships are critical to men's health and wellbeing, even though this is usually portrayed as the domain of motherhood. However, evidence shows that fathers' involvement in their children's lives has positive impacts on the child's development generally, but particularly in areas including self-esteem, emotional well-being, capacity to love and be loved, and their ability to participate in society. Of course, men also benefit from being part of these rich and rewarding relationships. (sub. 132, pp. 2–3)

Family Action Centre, University of Newcastle:

... up to 20 per cent of fathers when they return to work are leaving a mother who is not coping too well, who is doubting her ability to mother and who may not get into synch with her new baby. This is precisely when paternity leave is particularly helpful because paternal involvement can ameliorate the effect of post natal depression on the mother and on the baby. (sub. 34, p. 7)

The Construction, Forestry, Mining and Energy Union:

... most Australian males would recognise the importance of being around and being helpful at a critical point in their partner's life at the point at which the child is born and those first few weeks, and that's the point at which the woman needs the most assistance. Both parties from my personal experience, don't get a lot of sleep in that period of time. ... that is a time when both partners need to be there for each other ... it's good for the family to have paternity leave. It's good for the country. It's good for productivity, for employers to understand that's a critical time in the life of the male worker, just as it is for the woman involved, and we need to get paid paternity leave into the picture. (trans., p. 201)

What Women Want (Australia) Inc:

Any parental leave policy should also seriously consider a Government funded two-week paid leave period for fathers. This could be taken up at any time of the paid maternity leave period; either at the same time or at the end of the maternity leave period. Paternity leave taken towards the end of the mother's paid maternity leave will enable an extra period of time before formal child-care needs to be used. ... By enshrining two weeks paid leave and a six month unpaid component (in the second 6 months of a child's life) for either parent, we act to promote the role of father and make an impact on workplace culture in relation to paternity leave. (sub. 64, p. 3)

Public Interest Advocacy Centre:

There is evidence that babies benefit from close attachment to their fathers independent of their attachment to their mother and that fathers can also offer important support to mothers with postnatal depression. PIAC is concerned by evidence that shows that fathers are unlikely to take unpaid paternity leave. A paid leave entitlement should increase the percentage of partners actually taking leave, and this in turn should promote a better sharing of family responsibilities between men and women, hopefully leading to shifts in workplace culture. (sub. 226, p. 8)

The National Children's & Youth Law Centre:

The conjunctive payment for the initial 2 weeks after birth or adoption will support bonding with the second parent and allow support for the recovery of the birth mother. (sub. 152, p. 12)

Currently one week of unpaid parental leave at the time of the birth of a child can be taken simultaneously with leave taken by the primary care-giver of the child. The new National Employment Standards (scheduled to come into effect on 1 January 2010) extend the amount of unpaid parental leave that can be taken concurrently to three weeks.

As discussed in chapter 3, most Australian fathers (around 75 per cent) take some leave around the birth of their child. On average, fathers take two weeks leave, with 60 per cent taking paid annual/holiday leave, 27 per cent paid paternity leave and around 9 per cent unpaid paternity leave.

The most common reasons given by fathers for using non-parental types of leave are that paid paternity leave wasn't available (46 per cent) and they weren't eligible for paternity or parental leave (22 per cent) (Australian Institute of Family Studies, sub. 138, p. 15).

The fact that fathers typically rely on some form of paid leave is not surprising given that new fathers are often balancing the need to be the main source of family income (and income is an important predictor of child wellbeing), and wanting to spend time with their new baby and providing support to their partner.

In the LSAC Wave 1.5, mothers were asked which of a range of policy options would have improved things in the period of the birth of their child. About one-quarter said that more or some paid paternity/parental leave would have helped. Just 3 per cent said that more or some unpaid leave paternity/parental leave would have helped (Australian Institute of Family Studies, sub. 138, p. 16).

Whitehouse et al. (2007), found that Australian fathers were considerably less likely to take leave if they were working fewer than full-time hours, were in non-permanent positions, or if they worked in a small organisation. Employment in the public sector and membership of a union were also factors found to enhance the likelihood of fathers taking paternity leave. And, fathers were less likely to take leave in situations where their partners chose to exist paid employment or where there was more than one child in the family. Based on these findings, Whitehouse et al. argued the need for universal access to paid paternity leave:

Reflecting on the policy implications of these findings, we argue that they not only underlie the importance of universal access to paid paternity leave, rather than having it as a privilege available to those in public sector jobs or some large private corporations, but also draws attention to the kinds of labour market divisions that are likely to continue to affect utilization of leave, even in the context of more generous policy provisions. (Whitehouse et al. 2007, p. 402).

Evidence of benefits from paternity leave?

The literature on the role of fathers and the impact of policy initiatives designed to encourage fathers to take more leave on child health and wellbeing is relatively sparse. That said, there is some evidence to suggest that fathers' involvement with their children at an early age leads to increases in the father's continuing involvement throughout childhood. Haas (1992, 1996) found that Swedish fathers taking parental leave were more likely than others to share with mothers the general responsibility for child care. The longer the leave period fathers took the greater their involvement with their children, although even short leaves facilitated notable increases in fathers' involvement later.

A recent study by Tanaka and Waldfogel (2007), using data from the UK Millennium Cohort Study, also found taking leave and working shorter hours to be related to fathers being more involved with their babies. Fathers who took leave (any leave) after the birth of their child were found to be 25 per cent more likely to change nappies and 19 per cent more likely to feed their child and to get up at night when the child was age eight to twelve months. And, fathers with access to parental leave or paternity leave were found to be five times as likely to take some leave after the birth as otherwise comparable fathers who did not have such rights. While cautioning against definitive causality claims, Tanaka and Waldfogel concluded that policies which promote parental leave or shorter work hours could promote greater father involvement with infants:

... these results suggest that policies that provide leave coverage may result in fathers being more likely to take leave post-birth and more likely to be involved in their child's care at 8 months to 12 months, while policies that provide flexible hours options may result in fathers working shorter hours and being more involved in their child's care. (Tanaka and Waldfogel 2007, p. 421)

An association between paternal leave taking and higher levels of father involvement was also found by Nepomnyaschy and Waldfogel (2007) in a US study using data from the Early Childhood Longitudinal Study, but only for those fathers who took two weeks leave or more. The association between longer duration of leave and greater involvement by fathers in caring for their children was maintained after controlling for a range of selectivity factors including indicators of paternal pre-birth commitment (attendance of antenatal classes and the birth itself).

The evidence suggests that early father involvement in a child's life is of particular importance for the child's later emotional, cognitive and social well-being. Father involvement can also act to protect child wellbeing when mothers return to work early in a child's life. For example, Gregg and Washbrook (2003) found that in households where mothers return to work when their children were still young, fathers are substantially more engaged in parenting. And, greater involvement of

fathers in child rearing appears to have strong beneficial effects for later child outcomes in the areas of cognitive development and educational achievement.

Dex and Ward (2007) suggest that developmental problems are more likely to occur when fathers have left all home-based child care to their spouses, take no paternity leave around childbirth and have not used flexible working options. The OECD, however, notes that a direct causal link between taking a few days of paternity leave and child development can be hard to prove and suggest that:

Positive effects of flexible working practices and spending more time with children over a sustained period intuitively seems to be a more important factor in the paternal enhancement of child development. (OECD 2007, p. 111)

Taking time off work in the early stages of a child's life may also provide emotional benefits to fathers. Huttunen (1996), in a survey of Finnish fathers who had taken parental leave, found that the opportunity it gave to develop a closer relationship with their infants was highly valued by the fathers. Norwegian research also suggests that fathers who take 'daddy quota' in a 'home alone' manner become more aware of infant life than those who take parental leave with their partners (Brandth and Kvande 2003).

Other research shows that fathers can be an important source of support for mothers in terms of establishing and maintaining breastfeeding (Bar-Yam and Darby 1997, Pisacane et al. 2005). Chatterji and Markowitz (2008), using data from the US Early Childhood Longitudinal study, also found that having a spouse that did not take any paternal leave after childbirth to be associated with higher levels of maternal depressive symptoms.

Lessons from other countries

A number of other countries, by legislating periods of paid parental leave exclusively for the use of fathers (generally between two to four weeks), have tried to get fathers to spend more time with their children. And, these policies have had some success, but, as observed by the OECD they have not resulted in fundamental behavioural changes:

There is some success, as many fathers use these short (two to four weeks) periods of paid leave. However, taking a few weeks of leave after childbirth or around summer and Christmas holidays does not reflect a fundamental behavioural change. Paternal attitudes are not the only issue, as mothers frequently seem reluctant to give up leave in favour of their partner. (OECD 2007, p. 22)

The countries with the highest paternal participation rates are those with non-transferable leave programs (Sweden, Norway, Iceland) that also offer high-wage replacement rates (Marshall 2008).

Iceland has gone the furthest entitling each parent to three months paid leave with a further three months to be shared among parents. Fathers in Iceland now use about one-third of the available parental leave days, higher than in any other OECD country. The OECD suggests that ‘one way forward would be to increase the importance of individual entitlements to paid leave’ (OECD 2007, p. 119).

Participants’ views on two weeks paternity leave

Many participants supported the Commissions draft report recommendation of two weeks paternity leave (available on a ‘use it or lose it’ basis) to eligible fathers, or in same sex couples to the non-primary carer, to be taken concurrently with paid parental leave taken by the mother of the child. The Australian Human Rights Commission, for example, said:

The two weeks of paid paternity leave ... which is also available to same-sex supporting partners, is an advantage of the model. It provides recognition of the role of fathers, will help partners to support mothers, and provide health and wellbeing benefits to infants and the family as a whole. Paid supporting parent leave also operates as a signalling device that supports male workers with family responsibilities within the workplace and broader society. (sub. DR377, p. 7)

BPW Australia also said:

We support the introduction of two weeks paid paternity leave on a use it or lose it basis. Enabling participation of partners at this early stage of birth allows for bonding with the child as well as increased support for the mother. Introduction of such leave stimulates employer and employee notions that time off when children are born is not only offered but supported and promoted. BPW Australia suggests that this will facilitate the gradual decline of gender based stereotypes that have seen the caring and nurturing role being placed exclusively on the female. (sub. DR321, p. 2)

An extended period of paternity leave (typically 4 weeks), as a way of gaining greater involvement by men was also advocated by several participants. For example:

I also see the supporting partner’s leave of only two weeks as inadequate. Two weeks is not enough time to allow for times when the primary carer may need support as well as emergencies where both parents are required. Parenting is a shared job, and having such disproportionate leave periods would unfairly place the burden on the one parent. (Nicholas Curtis, sub. DR277, p. 1)

And, others called for more flexibility in terms of how paternity leave could be taken. The Commissioner for Children and Young People, Western Australia, for example, said:

I agree with the Commission’s recommendation of an additional two weeks of paternity leave reserved for the father or same sex partner. However consideration could be

given to this being provided in a more flexible manner, allowing the greatest capacity to achieve the aim of attachment between the father and the child. In some families this might be best achieved through the leave taken as one day a week over a longer period. This would be little more of an impost on a father's employment in terms of payroll administration than taking a two week block. (sub. DR311, p. 2)

The Australian Human Rights Commission also supported longer periods of paternity leave but suggested that this could be part of the second stage of reform (sub. DR377, p. 15-16).

Others, however, did not support the paid paternity leave part of the Commission's proposed scheme. The Australian Industry Group, for example, was opposed to paid paternity leave reflecting concerns about further entrenching attitudes about gender roles and maximising 'additionality':

Including paid paternity leave as an element of the scheme could conceivably encourage the view that paid parental leave is appropriately the domain of women, whereas the (much shorter) paid paternity leave is the part carved out for men. The existence of a separate paid paternity leave component may also encourage the perception that paid parental leave is not in fact available to fathers who are the primary care giver. ...

In Ai Group's view, a likely outcome of paid paternity leave is that fathers who take the paid leave will not increase their period of leave and will merely receive the additional income (by way of paid paternity leave payments) on top of what they would otherwise have received (noting that fathers typically take paid leave at this time in any event). This would not advance the goals sought to be achieved by paid paternity leave. (sub. DR 363, pp. 12-13)

The Australian Industry Group argued that to the extent that societal and cultural factors influence fathers' leave, educational and informational initiatives promoting the role and value of fathers may be more cost effective in achieving change.

Where does that leave us?

The evidence suggests that paternity leave has emotional benefits for fathers, facilitates bonding between fathers and children, positively affects children's emotional and educational achievements and provides support for the mother. While the research is relatively thin, there is some evidence of a relationship between paternal leave taking and higher levels of father involvement when fathers take two or more weeks leave.

The Commission recommends two weeks of paternity leave reserved for the father or same sex partner. Extending the paternity leave period and allowing greater

flexibility in terms of how the leave is taken should be considered as part of the three year review of the statutory paid parental leave scheme.

4.6 Choosing an optimal leave period

Overall, there is compelling evidence of child and maternal health and welfare benefits from a period of absence from work for the primary carer of around six months and a reasonable prospect that longer periods (of up to nine to 12 months) are beneficial. There is also evidence of gains from fathers participating in care in this early period. The gains do not only accrue to parents, as society often has to pay for health costs and other consequences of poorer outcomes for children and parents. There may also be long run productivity benefits — in the same vein that the Commission anticipated gains from early childhood education and health initiatives in its National Reform Agenda modelling.

While there is no exact science about choosing a postnatal leave period, the goal in designing a paid leave scheme is to provide enough leave, that when supplemented by parents' private efforts, achieves an appropriate length of absence from work.

The Commission's draft report advocated a postnatal leave period of 18 weeks. Participants' view on the most appropriate length of leave were diverse (box 4.9).

While many participants supported the 18 week period of leave, others questioned the discrepancy between the recommended six month period for enhancing child and maternal health and wellbeing and the 18 week period (and argued the need for 26 weeks). Some argued that a period of leave of up to one year was required to achieve optimal child health and development, while others considered the period of leave to be too long based on additionality grounds.

The duration of any paid statutory leave scheme does not have to be equal to the period of absence that most helps parents and their children. Parents already use many co-funding options — such as voluntary paid maternity schemes and past accumulated leave, savings (or reduced consumption), borrowings on the basis of housing equity — to fund a period of leave from work to care for their babies. With the evidence pointing to a period of around six to nine months as being the optimal period of exclusive parental care, a paid parental leave scheme of 18 weeks of postnatal leave would involve parents co-funding around two to five months leave, which most families would find affordable.

The Commission estimates that an 18 week period of statutory paid parental leave will provide the overwhelming majority of parents with the option of taking at least 26 weeks of leave without undue financial stress.

Box 4.9 Participants' views on the 18 week postnatal leave period

Tasmanian Women's Council:

Given that the Productivity Commission's recommendation is 18 weeks and research tells us that the majority of women will be able to use other forms of leave to stretch this out to 6 months (and beyond), the Council considers the 18 weeks of paid leave for parents of newborn children appropriate at this time. (sub. DR307, p. 9)

Business Council of Australia:

At a time when preventative health measures are considered as a key strategy to address chronic disease, the research you have presented reflects well the consensus among health professionals that an absence from work of up to six months has a major health benefit for both mother and child, not just in the short term but also in the longer term. ... Since the BCA's view is that Australia must work to improve its health and education outcomes, this investment in paid parental leave to enable absence from work through the first six months, is an important development. To the extent that this assists lower SES groups who typically do not share in the health and educational outcomes of average Australians this proposal can be seen as an important aid to breaking the cycle of disadvantage. (sub. DR288, p. 2)

NIFTeY NSW:

Offering less than 6 months while acknowledging the compelling evidence for the need for 6 months seems both contradictory and unethical, as well as poor economic sense if we know that not providing sound conditions for the baby's development means paying more later to try to make up for what was lost in health, secure emotional attachment, intellectual and social development. In terms of future productivity, it's hard to think of a more effective investment than providing conditions for a sound start to life. (sub. DR386, p. 1)

NSW Commissioner for Children and Young People and National Investment for the Early Years:

... we are disappointed that the Productivity Commission has not paid sufficient attention to the evidence that a paid parental leave scheme of at least 12 months is needed to provide the best long term outcomes for children's wellbeing, particularly in terms of mental health and literacy, as well as for the community. ... Providing payment for only 18 weeks will disadvantage those children of women who do not have access to an employer paid parental leave scheme or other forms of accrued leave in order to co-fund at least eight weeks of leave. We are concerned that vulnerable families, such as those where parents work casually and/or are from lower socio-economic backgrounds, will be particularly disadvantaged. (sub. DR373, pp. 1-2)

The Australian Industry Group:

While Ai Group appreciates that the appropriate duration of a scheme is influenced by a number of factors, it expresses some reservation about the necessity and cost of the Commission's proposed duration. The Commission notes research from the Longitudinal Study of Australian Children indicating that mothers who did take leave around the time of childbirth took an average of 37 weeks (over 9 months). Only 29% of mothers in paid employment prior to childbirth returned to work within six months of childbirth On the basis of this research, it is not clear why the Commission considers 18 weeks paid leave necessary. (sub. DR363, p. 11)

While not all will use this option, the Commission's analysis, supported by international evidence, suggests that the proposed scheme would significantly increase mothers' current time away from work around the birth of a baby. Our estimate is that, on average, eligible employed mothers would increase their absence from work by around an additional 10 weeks (appendix G). Consequently, more mothers will be able to have longer, beneficial interactions in the early phase of their babies lives and to breastfeed for longer.

The effects on duration are estimated to be greater for lower income, more financially constrained families. And, while most women already take more than 26 weeks of leave, the scheme would enable a significantly greater number to reach this duration and also allow many of those taking six months to increase their duration to nine months.

As such, the Commission continues to recommend an 18 week period of statutory paid parental leave (with no prenatal leave period). It is also the Commission's assessment that it is preferable to have a longer postnatal period of leave than allocating the leave over both the pre and postnatal periods as it is in the postnatal period where behaviour is more likely to change.

The Commission recommends that the statutory paid parental leave be used up in the 12 months after birth (the draft proposed a limit of six months) as part of a continuous period of parental care. The 12 month limit is based on the Commission's assessment that there are child welfare benefits of exclusive parental care up to six months, and a reasonable prospect that longer periods of up to nine to 12 months are beneficial. The 12 month limit also means that most parents electing to take privately negotiated paid parental leave at half pay could continue to get full access to the statutory paid parental leave.

The Commission also proposes two weeks of paid paternity leave (which cannot be transferred to the mother) on a 'use it or lose it' basis. Leave quarantined for fathers (also covering same sex partners) recognises the benefits of their involvement early in the life of a child and acknowledges the lessons from overseas experiences that men rarely take paid parental leave if it is at the expense of the mother using the leave.

Duration for special groups

Multiple births. Mothers having twins or more require a similar period of time to recover from childbirth as those mothers having a single baby, although the return to full functionality may be slower (higher levels of fatigue likely). Given that the baby bonus is currently paid per baby, the Commission considers that mothers

eligible for paid parental leave giving birth to more than one baby should be entitled to the same period of paid parental leave as those mothers having a single baby, and should also receive the baby bonus for any additional babies (subject to the income test), but not family tax benefit B.

Stillborn babies. Around 2 000 babies are stillborn (death of a baby in uterus or shortly after birth weighing more than 400 grams or more than 20 weeks in gestation) every year in Australia. The death of a baby is a devastating experience for parents involving a period of intense grieving. Mothers who have stillborn babies not only need time to physically recover from childbirth, but also require time to recover mentally and emotionally. As the National Council for Women Queensland said:

Families experiencing grief and loss associated with a stillborn child or death soon after birth should be entitled to maternity leave entitlements in the same manner as any other person with a live child. The devastating effects of the loss of a child require support and care for both parents to minimise the development of mental illness. This must be noted as particularly important for the mother as she has the added hormonal changes associated with childbirth in the absence of the joy of motherhood. (sub. DR392, p. 2)

There is some evidence (although based on small samples), to suggest that mothers who have stillborn babies are at higher risk of depression and anxiety, particularly in subsequent pregnancies.

In the draft report the Commission recommended that the full period of the paid parental leave scheme be available to eligible parents who have an infant that dies in uterus (20 weeks in gestation or more) or shortly after birth. In response to this recommendation, Family Voice Australia noted that the rules for birth registration (babies weighing more than 400 grams or more than 20 weeks in gestation) also apply to babies who die shortly after birth as a result of procured abortion and argued that ‘it would be inappropriate and offensive for the baby bonus, a maternity allowance or paid parental leave to be funded by the taxpayer in the circumstances of a procured abortion’ (sub. DR298, p. 3). While statistical data on abortions in Australia is not systematically collected, international evidence suggests that a small proportion of abortions (around 1 per cent) occur after 20 weeks of gestation and the vast majority of these are undertaken because of foetal abnormalities or to protect the health of the mother.

As such, the Commission continues to recommend that mothers having stillborn babies that meet the requirement for birth registration in Australia be eligible for full entitlement to paid parental leave.

Death of mother/primary carer. In the situation of the death of a mother/primary carer, families would have already factored in the income they would have received

from the statutory scheme. Given that, and the potentially traumatic nature of these events for the child and partner concerned, the Commission recommends that the new primary carer be eligible for the full period of the parental leave scheme (or remaining period of paid leave) in the event of the death of an eligible primary carer. The new primary carer in this situation would not need to meet the employment eligibility test.

Surrogate mothers: Surrogate mothers require a period of leave to physically recover from childbirth. The Commission considers that a period of 12 weeks leave to be an appropriate period of leave for postnatal maternity recovery. The treatment of the custodial parents is more complex, as different Australian jurisdictions have varying legal provisions for surrogacy. In March 2008, the nation's Attorneys-General agreed to develop a uniform framework to allow conditional, non-commercial surrogacy and in mid January 2009 released a consultation paper.² The Commission proposes that paid parental leave provisions for parents taking custody of infants from surrogate mothers be finalised when Australian Governments have determined that framework. However, the Commission considers that, in principle, any arrangements should be the same as those for parents of adopted children — and indeed this may be the outcome of the new framework.

Parents adopting children. Mothers adopting a child do not require time to physically recover (and very few breastfeed), but parents adopting children need time to develop a relationship with the child. As Families with Children from China-Australia argued, it is not the needs of the mother, but rather the child, that means that a period of parental care is required:

Adoption provides a family to a child that does not have one to care for them. It's a child-centred practice. It's the needs of the child rather than those of the mother or father that necessitate that one parent care full-time for a newly adopted child. (Karleen Gribble, Families with Children from China-Australia, trans., p. 466)

Most of the children adopted in Australia (576 in 2005-06) are adopted from overseas (almost three-quarters). The majority of adopted children are younger than five years (76 per cent) and more than half of these are aged less than one year (AIHW 2006). Many of the children adopted from overseas have spent time in institutional care. Because of this, and the fact that adopted children are adapting to very different environments and types of care, adoptive parents can find the early period of time with their new child particularly challenging. The state Departments of Community Services acknowledge this and require, or strongly encourage,

² Joint Working Group of the Standing Committee Of Attorneys-General, Australian Health Ministers' Conference, and Community And Disability Services Ministers' Conference 2009, *A Proposal for a National Model to Harmonise Regulation of Surrogacy*, January.

adoptive parents to have one parent at home full-time with the adopted child for between six and 12 months (requirements vary by jurisdiction).

Currently, to qualify for unpaid adoptive leave, the child must be less than five years of age at placement. But, as argued by a number of participants, often the older the child at adoption, the more difficult the transition period and the more intensive the parental care required. The Australian Breastfeeding Association, for example, said:

... adoptive families should be included in the scope for eligibility for paid leave since their need to establish a relationship with their new child is just as important as other new parents. There should be no age limit on the adoption leave for parents as many overseas adoptions involve much older children, and beginning a new family with these children requires a considerable investment of time. (sub. 249, p. 5)

The House of Representatives Standing Committee on Family and Human Services (2005) also recommended that the age limit to qualify for leave be removed. In its draft report the Commission recommended that eligible adoptive parents should be entitled to the same period of parental paid as biological parents (commencing at the time of placement), regardless of the age of the child. Since then the *Fair Work Bill* has proposed the National Employment Standards incorporate provision for unpaid leave for adoption placements involving children up to the age of 16 years (previously school-age children were excluded). A Senate inquiry (to be completed by the end of February 2009) is considering all aspects of the Bill as a prelude to its passage through the Senate. Given that the Bill has not been passed yet, the Commission reiterates its position that leave for adoption should include all ages of children up to and including 16 year olds.

While some participants argued for parents of ‘known child’ adoptions to be included under the statutory paid parental leave scheme (Office of the Child Safety Commissioner, sub. DR314, p. 2, Australian Women Lawyers, sub. DR389, p. 6-7), it is the Commission’s view that ‘known child’ adoptions (where a pre-existing relationship with the child exists — often involving a step parent) do not usually involve the same challenges as non-familial adoptions in terms of developing relationships with the adopted child or adapting to a new environment. For this reason, the Commission considers that ‘known child’ adoptions be excluded from eligibility for the statutory paid parental leave scheme.

Nevertheless, there may be special circumstances when it is appropriate to allow eligibility to statutory paid parental leave for known child adoptions. For example, one case may be if there has been significant demonstrated trauma experienced by the child that requires intensive care by the new parent/s. The Commission proposes a capacity for administrative determinations of eligibility in special circumstances.

Primary carers but not biological parents

The primary carer of a child may not always be one of the child's biological parents (for example, where there is no responsible father and the mother is very ill). A number of submissions noted the role that grandmothers and 'aunties' play in caring for children in Indigenous communities (Western Australian Department for Communities' Office for Women's Policy, sub. DR371 p. 4; The Office of Women's Policy in the Northern Territory Government, sub. DR414, p. 4; National Women's Centres, sub. DR310, p. 5), and the need to extend paid parental leave to such carers.

As discussed in chapter 2, there is already some capacity under the proposed National Employment Standards for paid leave for care of 'immediate family' in the event of an emergency, which could encompass care by a grandparent of a grandchild. The provisions, however, are relatively narrow in their reach and would not cover all of the circumstances where a primary care role for a baby might desirably be exercised by a relative. Accordingly, the Commission proposes that statutory paid parental leave (or the balance not taken by the mother) could be allocated to a non-parental primary carer, but only if:

- there are genuine problems in the parents fulfilling that role (such as a child protection issue or death of the parents), *and*
- the relevant primary carer meets the work tests for eligibility *and*
- the carer has a 24 hour a day and long-term responsibility for the care of the child *and*
- the carer is not making use of the carer's leave entitlements under the National Employment Standards if these apply to them.

An appropriate definition of a formal primary carer would also need to be determined by FaHCSIA (chapter 2).

The above approach would cover care by 'aunties' and grandmothers in Indigenous communities, but only where the above criteria were met.