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Maternity Services Consumer Council

WELCOME, TENA KOUTOU KATOA, KIA ORANA, TALOFA LAVA, MALO LELEI, FAKAALOFA ATU.

Welcome to the second issue of the Maternity Services Consumer Council Newsletter for the year.

Extra postnatal care for all? Yeah right!
It is proving to be another interesting year for maternity services in New Zealand as the new government attempts to make good on its pre-election promise to extend in-patient postnatal care from two to three days. On 19 May Health Minister Tony Ryall announced that there will be an extra $103.5 million over four years for maternity services. This will provide for longer postnatal stays for some new mothers, an optional meeting each trimester for "at risk" mothers, obstetric training or refreshers for GPs wanting to return to providing maternity care, meeting the cost of the increase in births, and fully funding Plunketline's 24-hour telephone service. It sounds good but it is extremely doubtful whether the majority of new mothers will get any extra postnatal care and support as conditions apply.

A fabulous new publication – *Birthspirit Midwifery Journal*
In February we received a copy of the first issue of a beautiful new publication, *Birthspirit*, and immediately began negotiating over who would get to read it first! By the time the second issue arrived we had both subscribed – problem solved. Get hold of a copy and you will see why. A subscription form is enclosed with the newsletter.

What's in this issue of the newsletter
This issue of the MSCC newsletter begins with an article on caesarean sections and the production of the new leaflet on caesareans by the MSCC, a copy of which we have included with your paper copy of the newsletter. For those receiving the newsletter electronically, please email us if you wish to receive a sample copy free of charge.

Denise Hynd, an Australian midwife now based in Auckland, also writes about an exciting international initiative based on promoting, protecting and supporting physiological birth – the International MotherBaby Childbirth Initiative. See page six for more about this.

We also feature an article on how pregnancy primes the baby to cope with life outside the womb – "Mothers, babies and health in later life" – which draws on the fascinating information found in "*Mismatch: The Lifestyle Diseases Timebomb*."

Don't forget to check out the dates for the MSCC's Steering Group meetings for the rest of the year.

Happy Reading!

Lynda & Jennie

CAESAREAN SECTION
The Heart of the Matter

This article is linked to and can in many aspects be seen to follow on from the first two articles that featured in the March 2009 issue of the MSCC Newsletter. The first article, written by Jennie Valgre, was a report on the Centre for Attachment's "*conversation*" on the meaning of motherhood that she attended at the end of last year, and the second article was a summary of the Childbirth Connection's report on evidence-based maternity care. The issues that are a part of most conversations, reports and books on maternity care and becoming a mother inevitably include some reference to the rising rates of intervention in pregnancy and birth. But despite a growing body of evidence that reveals significant and long-lasting changes and harms to both mother and baby caused by the overuse of interventions such as electronic foetal monitoring, inductions, epidural anaesthesia and caesarean sections, the full story is still in the process of being documented. It is at one and the same time both a personal individual story of a woman giving birth in the 21st century as well a story of how what is happening during birth is changing societies in ways that have the potential to threaten the very fabric of our society and the future for humanity.

It is an inconvenient truth that many of those involved in the provision of maternity care would probably rather not face. It was a sentence in a book I was reading that led me to this new and uncomfortable awareness of another dimension to the epidemic of caesarean sections.

"*It is noticeable that the greater the need a society has to develop aggression and the ability to destroy life, the more intrusive the rituals and cultural beliefs are in the period around birth*." (1)

The book, "*The Caesarean,"* was written by Michel Odent, and I was reading it and a number of other books and research papers in preparation for writing a leaflet on caesarean section for the MSCC. One of the many questions obstetrician and author Michel Odent posed in the book was, in the age of the safe caesarean as a consumer good "*what is the future of a civilisation born by caesarean?*"

Noting that other mammalian species do not take care of their babies after a caesarean, he commented that while human behaviour is more complex and is less influenced by the balance of hormones, "the spectacular and immediate behavioural responses of animals indicate the questions we should raise about ourselves." He then raises three basic questions:

- How does the capacity to love develop?
- What are the links between the many facets of love?
- Why do all societies ritually disturb the first contact between mother and baby?

Referring to recent developments in an area of scientific study that he refers to as 'the scientification of love,' Michel Odent draws first on the findings of ethologists whose field of study is the behaviours of animals and human beings:

"Since the emergence of their discipline ethologists have traditionally had a particular interest in mother-baby attachment. Whatever the species of mammals they are

studying, they always confirm that there is a short yet crucial period immediately after birth that will never be repeated."

He points out that there is growing evidence from several disciplines that in humans the short phase of labour between the birth of the baby and the delivery of the placenta is also critical and maybe extremely important to the development of the capacity to love.

In humans the entire process of giving birth is determined by a complex cocktail of love hormones, one of which is the hormone oxytocin. As a result of many studies in other mammals, it is now believed that in women brain receptors to oxytocin develop during labour and birth. This amazing hormone is not only responsible for the contraction of the uterus during labour and birth, and for the delivery of the placenta, as well as for the contraction of special cells in the breast which makes "the milk ejection reflex" possible, it is also involved in the contraction of the prostate and seminal vesicles during the sperm ejection reflex, and the contraction of the uterus during the female orgasm.

However oxytocin is just one of the hormones involved in the process of giving birth. As well as oxytocin, there are endorphins, prolactin, vasopressin (a hormone that regulates the body's retention of water and also has been shown to have a variety of neurological effects on the brain), hormones from the adrenaline family otherwise known as 'catecholamines,' and even melatonin, the 'darkness hormone' which is released at night to reduce the activity of our neocortex and help us fall asleep. This incredibly complex balance of hormones are all essential components of the process of giving birth and they are released by both the mother and the baby at various stages during labour and birth. They do not disappear immediately after the birth as each hormone has a specific role to play in the interaction that occurs between the mother and her newborn baby immediately after birth.

For example, a high level of prolactin (Michel Odent refers to prolactin as "the typical motherhood hormone") results in the mother directing the effects of the cocktail of love hormones circulating in her body towards her baby. He writes:

"This is exactly what is happening immediately after a birth in physiological conditions, at a time when the peak of oxytocin can be extremely high (if the place is warm enough, if the eye-to-eye and skin-to-skin contacts between mother and baby are not disturbed, and if the sense of smell of both of them is not distracted by aggressive odours)." (1)

He notes that these concepts are supported by studies looking at the background of those who have expressed some form of impaired capacity to love – the love of oneself and the love of others.

In looking for an answer to the question of why all societies interfere in some form or another in the interaction between mother and baby at birth, he points to the fact that for thousands of years the basic strategy for survival of most human groups has been to dominate nature and to dominate other human groups, and that there was an evolutionary advantage in developing the human potential for aggression rather than the capacity to love.

However, we are now living at time when we need to develop radical new strategies for survival. “Today we are in the process of realizing the limits of traditional strategies. We must raise new questions such as ‘How do we develop this form of love which is respect for Mother Earth?’ In order to stop destroying the planet we need a sort of unification of the planetary village. We need love more than ever before. All the beliefs and rituals which challenge the maternal protective and aggressive instinct are losing their evolutionary advantages.”

This is just part of the story of what is happening as a result of the increasing rate of caesarean sections being preformed around the world. There are an increasing number of studies that show that caesarean sections often result in both short and long term harms to both mother and baby and increase the risk of a number of untoward events. The full extent of these risks is rarely known by mothers prior to giving birth which is why the MSCC decided to produce a pamphlet based on the research that is currently available.

For the mother these include the increased risk of uterine infection, surgical injury, blood clots, pneumonia, haemorrhage and the need for a blood transfusion, emergency hysterectomy, anaesthesia complications, urinary tract infection, difficulties with getting breastfeeding established, intense and longer-lasting pain, postpartum readmission to hospital, and prolonged recovery time.

Long-term harms include scar tissue or adhesions (endometriosis) causing long-term pelvic pain, feeling fatigued for several years afterwards, increased risk of bowel obstruction, decreased fertility, increased risk for ectopic pregnancy (fertilised egg gets stuck in the fallopian tube), increased risk of uterine rupture during subsequent birth, placenta previa (the placenta lies across the cervix) in subsequent pregnancies, placenta accreta, placenta increta and placenta percreta (where the placenta attaches itself too deeply into the wall of the uterus) in subsequent pregnancies, and the increased risk of miscarriage or stillbirth in a subsequent pregnancy. (1) (2)

For the baby these include the increased risk of being born prematurely, breathing problems, including Respiratory Distress Syndrome (RDS) – labour and birth help clear the baby’s lungs of fluid, asphyxia, surgical cuts to the baby during the operation – around 2%, hypoglycaemia, increased rate of admission to neonatal intensive care units, and difficulty getting breastfeeding established. The long-term risks to the baby include the increased risk of respiratory infections during childhood, increased risk of developing asthma, increased risk of obesity, and the increased risk of developing type 1 diabetes. (1) (2)

Links to other disorders such as autism are also being raised in the literature. Further research is needed to confirm or clarify the connection between such disorders and the various interventions during labour and birth that have now become almost routine.

There are many pieces of this particular jigsaw still to be discovered and it may be some time before the full picture is available.

The studies have been done often raise a number of complex questions that involve different areas of scientific enquiry. Some of these studies have been shunned by the medical community and the media, despite being published in authoritative medical and scientific journals. Some of them have not been replicated, not even by the original investigators, and they are rarely quoted after publication. Deemed to be politically incorrect, they have been consigned to what Michel Odent refers to as an "epidemiological cul-de-sac." (1) Researchers looking at how people were born often face extreme bureaucratic and funding difficulties. Maybe because the results of their research have the potential to shake the very foundations of our society by revealing the long-term consequences of how we as a society interfere with labour and birth.

The MSCC's latest leaflet "*Caesarean Section: The Facts*" is now available. The information in the leaflet is based on the large amount of research that is now being done around the world – research that has been rescued from the epidemiological cul-de-sac and published in a number of excellent books.

Unfortunately, the MSCC is going to have to charge for this leaflet. We are now in a new economic climate where some funding agencies have had to suspend grant application rounds and/or reduced the amount they can afford to give to community groups that rely on them to fund some of the work of such groups. However, we do want the information to get out to women and their caregivers.

References

1. M. Odent. "The Caesarean." Free Association Books 2004.
2. Sarah J. Buckley. "Gentle birth, gentle mothering" Chapter 9 *Caesarean Surgery: The Whole Story* Celestial Arts 2009.

THE INTERNATIONAL MOTHERBABY CHILDBIRTH INITIATIVE

In 1996 the Coalition for Improving Maternity Services (CIMS) created the Mother-Friendly Childbirth Initiative (MFCI): 10 Steps to Mother-Friendly Hospitals, Birth Centers, and Home Birth Services for the U.S. (see www.motherfriendly.org). In subsequent years, CIMS received many requests from various countries to help other groups create their own initiatives plus calls for a global initiative, especially from representatives of organizations who attended CIMS conferences. Thus in 2005 CIMS created an International Committee, which gained a grant to develop a global initiative. Also CIMS had created the world's largest international database of maternity and breastfeeding organization representatives in 163 countries, including consumer groups, health-care professionals, government and nongovernmental agencies. This information was used to conduct an international survey around the 10 steps of the MFCI.

The survey results led to the first draft of the International MotherBaby Childbirth Initiative (IMBCI). This first draft was refined at a 2006 a meeting of representatives from WHO, UNICEF, the WHO/UNICEF Baby-Friendly Hospital Initiative, UNFPA, USAID, FIGO, CIMS, Childbirth Connection, Lamaze International, DONA International, La Leche League International, Wellstart International, the World Alliance of Breastfeeding Associations (WABA), the International Lactation Consultant Association (ILCA), the International Confederation of Midwives (ICM), the International Council of Nurses (ICN), the International Pediatric Association (IPA), the Academy of Breastfeeding Medicine, the Partnership for Maternal and Child Health, the White Ribbon Alliance and JPHIEGO. Finally the International MotherBaby Childbirth Initiative (IMBCI) was launched on International Women's Day, 8 March 2008, after a year of debate over the wording. Previously in 2007, the CIMS International Committee became the International MotherBaby Childbirth Organization (IMBCO) with a governing board to oversee IMBCI.

The IMBCI aims both to highlight the importance of a woman's birth experience and the scientific evidence showing the benefits of care based on normal physiology as well as attention to individual needs. Additionally the 10 Steps of the IMBCI aims to implement woman-centered and low intervention practices which promote optimal health and wellbeing of a woman and her baby through-out the childbearing continuum. The name, IMBCI reflects the importance of the mother and baby as one integral unit or dyad that should not be separated as well as the impact of birth practices on breastfeeding.

The 10 Steps of IMBCI are based on best available evidence about the safety and effectiveness of tests, treatments and other interventions for mothers and babies. "Safe" means that care is provided through evidence-based practices that minimize the risk of error, harm and support the normal physiology of labour and birth. "Effective" means that the care provided achieves expected benefits and is appropriate to the needs of the pregnant woman and her baby. Safe and effective care of the MotherBaby provides the best possible health outcomes and benefits with the most appropriate and conservative use of resources and technology.

Thus optimal MotherBaby maternity services have written policies, implemented in education and practice, requiring that its health care providers:

Step 1 Treat every woman with respect and dignity, fully informing and involving her in decision making about care for herself and her baby in language that she understands, and providing her with the right to informed consent and refusal.

Step 2 Possess and routinely apply midwifery knowledge and skills that enhance and optimize the normal physiology of pregnancy, labour, birth, breastfeeding, and the postpartum period.

Step 3 Inform the mother of the benefits of continuous support during labour and birth, and affirm her right to receive such support from companions of her choice, such as fathers, partners, family members, doulas, or others.

Step 4 Provide drug-free comfort and pain-relief methods during labour, explaining their benefits for facilitating normal birth and avoiding unnecessary harm, and showing women (and their companions) how to use these methods, including touch, holding, massage, labouring in water, and coping/relaxation techniques. Respect women's preferences and choices.

Step 5 Provide specific evidence-based practices proven to be beneficial in supporting the normal physiology of labour, birth, and the postpartum period, including: Allowing labour to unfold at its own pace, while refraining from interventions based on fixed time limits and utilizing the partogram to keep track of labour progress, Allowing adequate time for the cord blood to transfer to the baby for the blood volume, oxygen, and nutrients it provides (see www.imbci.org for further examples).

Step 6 Avoid potentially harmful procedures and practices that have no scientific support for routine or frequent use in normal labour and birth. When considered for a specific situation, their use should be supported by best available evidence that the benefits are likely to outweigh the potential harms and should be fully discussed with the mother to ensure her informed consent. These include: sweeping of the membranes, artificial rupture of membranes, medical induction and/or augmentation of labour, (see www.imbci.org for further examples).

Step 7 Implement measures that enhance wellness and prevent emergencies, illness, and death of MotherBaby.

Step 8 Provide access to evidence-based skilled emergency treatment for life-threatening complications.

Step 9 Provide a continuum of collaborative maternal and newborn care with all relevant health care providers, institutions and organizations. Include traditional birth attendants and others who attend births out of hospital in this continuum of care. Specifically, individuals within institutions, agencies and organizations offering maternity-related services should:

Step 10 Strive to achieve the 10 Steps to Successful Breastfeeding as described in the WHO/UNICEF Baby Friendly Hospital Initiative.

All of these Steps are an expression of underlying IMBCI principles such as;

- IMBCI draws on a midwifery model of care and affirms that midwifery knowledge, skills, and behaviour are essential for optimal MotherBaby care. A midwifery model of care is based on the normal physiology, sociology and psychology of pregnancy, labour, birth, and the postpartum period.
- Continuity of care and sensitivity to the mother's cultural, religious, and individual beliefs and values reduce the risk of psychological trauma, enhances women's trust in their caregivers, their experience of childbearing and their willingness to accept care and seek care in the future.
- When culturally appropriate, the father's presence at birth can have positive effects on the family, his parenting and respect for the mother.
- Maternity services are essential aspects of health care and should be fully funded, staffed, supplied and freely available to every woman regardless of citizenship or social status.

Whilst an examination of New Zealand maternity services shows support for the above principles and some IMBCI steps (1, 7, 8, 9 and 10) as either policies, practices or aims, it also reveals that nationally many services fail to meet other vital IMBCI principles such as;

- Many women can safely give birth outside of hospitals; in clinics, birth centres and homes when skilled care and effective referral are available. Women, including those with prior caesareans, babies in breech positions, and twins, should be accurately informed about the harms and benefits of vaginal and caesarean birth in all available settings and with available providers.
- Pregnancy, labour, birth, and breastfeeding are normal and healthy processes that in most cases need only attention and support from caregivers. Current evidence demonstrates the safety and superior outcomes of this approach.

Similarly a review of national rates of childbirth intervention reflects a general failure to meet Steps 4, 5 and 6. Yet evidence shows that medical interventions in pregnancy, labour or birth when used inappropriately lead to avoidable complications, cause harm and even death rather than saving lives! New Zealand's population including its health care policy makers need to be made aware that unnecessary overuse of interventions also result in both short and long term increased health care costs and strain health resources without improving outcomes. For example, caesarean rates which surpass the WHO recommended upper limit of 15%, like that in New Zealand (27%) risk lack of resource availability when truly needed resulting in possible loss of lives. Overuse of this surgery also carries serious potential short and long term harms for both mothers and infants. In addition, as intervention has become the norm, care providers are rarely trained in and/or able to retain and use the skills and knowledge required to support the normal physiology of labour and birth of vaginal breech or twin births.

Thus New Zealand maternity services would benefit from adoption of the 10 Steps of the MotherBaby Childbirth Initiative! Documentation and processes for international IMBCI accreditation of maternity services according to the 10 IMBCI steps are being currently trialed in Argentina.

Meanwhile any New Zealanders interested to help launch, promote or contribute to this initiative in Aotereoa should go to the IMBCI web site (www.imbci.org) and sign up their organisation or group as a supporter and aim to become involved.

It is hoped that representatives of all the groups who have endorsed the New Zealand College of Midwives 'Consensus Statement on Normal Birth' will join to launch and manage this initiative in New Zealand by forming a board and trust for its future. Public promotion is aimed to be through screenings of Orgasmic Birth (www.orgasmicbirth.org) followed by panel discussions involving local supporters, as well as IMBCI presentations at conferences or other maternity care provider and consumer gatherings.

Denise Hynd
Midwife, Lactation Consultant
West Auckland 09 832 3467
www.closetonature.org.nz

"Birth is not only about making babies. It's about making mothers -strong, competent, capable mothers who trust themselves and believe in their inner strength."

- *Barbara Katz Rothman*

2009 MSCC Meeting Dates

Our MSCC Steering Group is growing and this can only mean great things for the women of New Zealand. Make sure your voice is heard - please make a note of the following dates for the rest of 2009 in your diary and come along to our monthly meetings. You can be assured of a warm welcome. The MSCC meets on a Tuesday morning – meetings start at 10 am – and the days have been fitted around school holidays.

The meetings are held on the 2nd floor, 27 Gillies Avenue, Newmarket. The meeting dates for the remainder of 2009 are: **30 June, 4 August, 1 September, 13 October, 3 November and 1 December.**

So if you have an issue of concern or would like to share information about women's experiences of maternity care then do come along. Babies and toddlers welcome.

We look forward to seeing you – on the 2nd floor, 27 Gillies Avenue.

MOTHERS, BABIES AND HEALTH IN LATER LIFE

There is increasing evidence that we are now living in a world that we are totally unsuited for, and that the environment we have created will shorten the lives of our children and grandchildren. According to the authors of "*Mismatch: The Lifestyle Diseases Timebomb*" (1) a combination of our evolutionary history and our intrauterine environment has created a growing and dangerous mismatch of global proportions, and it is taking its toll through a world-wide epidemic of diabetes, heart disease and obesity.

Researchers Peter Gluckman and Mark Hanson have written a fascinating and thought-provoking account of how both animals and the human species have evolved over tens of thousands of years in a manner designed to ensure both survival and reproduction by matching the organism with its environment. This, coupled with the physiological programming that occurs in the womb, results in the power to radically affect the health of the child.

Nutrition during pregnancy

At the heart of this story is the concept that nutritional stress as well as other kinds of stresses on a woman during pregnancy can permanently affect the growing baby by laying down foundations for how the body responds to its lifestyle after birth, an idea first proposed by Professor David Barker from the University of Southampton School of Medicine in England. (2) A baby growing in its mother's womb is incredibly sensitive to the nourishment it receives, and its body and bodily functions are permanently changed by it. As shown by hundreds of studies on the natural history of other species, such plasticity during development is a phenomenon of all living things, from lizards to humans. It is designed to match the infant to the environment it is about to be born into.

As David Barker, Peter Gluckman, and Mark Hanson have shown, if the nutritional experience of the human infant after it is born is much richer than what it experienced during pregnancy then the child is at much greater risk of experiencing the premature onset of the chronic diseases of middle age – coronary heart disease, type 2 diabetes, hyper-tension and osteoporosis.

Foetal undernutrition whether due to there being not enough food for the pregnant woman, an unbalanced maternal diet, illness or smoking, causes the developing baby to make adjustment to its development and physiology which favour successful life after birth in a nutritionally limited environment. "It will reduce its muscle bulk, adjust its biology to favour laying down fat whenever it can as a form of energy reserve, and set its appetite to favour eating high-fat foods when available. It will make many other trade-offs because it will adopt a fast and furious strategy and forecast a short rather than a long life. It will form a smaller number of kidney units – predicting it will not live long enough to need the reserve capacity. It will reduce the ability of insulin to drive glucose into muscle cells so that its demands for energy are less." (1)

The opposite is also true – the foetus is sensitive to excessive nutrition from high maternal blood sugar. If a mother's glucose levels are high due to diabetes, foetal

glucose levels will also be elevated. This will cause the foetal pancreas to release insulin and lead to the foetus laying down fat. Large babies are more likely to be fat as children and in turn to develop diabetes, thus perpetuating the cycle.

The mismatch of infant formula

Excess infant nutrition postnatally has also been identified as a problem due to the use of cow's milk which has the same effect as overfeeding during pregnancy. Cow's milk is energy and protein dense when compared to breast milk and recent studies demonstrate that infants fed on cow's milk are much more likely to get obese as they grow older. Bottle-feeding with milk from another species cannot be matched to the needs of the human infant because the specific nutritional composition of mother's milk has been matched by evolutionary processes to the nutritional demands of the infant. Different species have very different growth patterns and nutritional demands. "No wonder that bottle-feeding with artificial formula or cow's milk has long-term consequences for the human infant. There is much evidence that children who have been bottle fed are more likely to get infections as infants, to develop obesity, have poorer cognitive development, and may be at great risk of disease in later life. This is a simple and preventable mismatch. Human babies should receive human milk." (1)

Maternal stress

The foetus is also sensitive to maternal stress. When maternal stress hormones levels are high, they can affect the foetus and lead to changes in development including the way the baby's stress response system works. A study of the women who were pregnant in New York at the time of the 9/11 terrorist attack and who developed PTSD (post-traumatic stress disorder) has revealed that the babies they subsequently gave birth to have altered levels of the stress hormone cortisol.

Smoking during pregnancy

Smoking during pregnancy also affects foetal nutrition because nutrient transport across the placenta is inhibited by the action of nicotine and this leads the foetus to make the prediction that it will live in a world of poor nutrition, when in fact there is no nutritional limitation.

The average stature and physique of humans from different parts of the world reflect the local nutritional regime by processes that are established during pregnancy and transmitted 'epigenetically' (see box below) to succeeding generation. Obesity and its consequences are likely to emerge when this regime changes. In the developing world those released from the grip of historic poverty (those living in urban environments rather than the rural poor) are most affected, whereas in the developed world, the victims are the least educated and the least affluent.

The term **epigenetics** refers to changes in phenotype (appearance) or gene expression caused by mechanisms other than changes in the underlying DNA sequence, hence the name *epi-* (Greek: over; above) *-genetics*. These changes may remain through cell divisions for the remainder of the cell's life and may also last for multiple generations. However, there is no change in the underlying DNA sequence of the organism; instead, non-genetic factors cause the organism's genes to behave (or "express themselves") differently.

As one reviewer pointed out, there are already graphic examples of this phenomenon. Just a few decades ago the Pima Indians of Arizona and the inhabitants of the Pacific Island of Nauru were lean and fit and knew nothing of diabetes. Now the majority of young adults become obese, develop diabetes and die prematurely of heart disease. While a genetic predisposition to diabetes may have underpinned the crisis, the immediate cause was undoubtedly an abrupt decline in strenuous physical activity along with the displacement of the traditional cuisine by energy-dense food. (3)

As mentioned above, the mismatch paradigm as applied to humans is based on the same biological processes as those that operate in other species. This is important for two reasons – experimental studies in animals help us to understand the predicament we now face, as well as reminding us that by changing the environment we not only create a potential mismatch for ourselves, we also do so for other species.

The authors of "*Mismatch*" believe that the route to reducing the impact of the many mismatches lies in technological, environmental and cultural developments. They argue very convincingly for research funding and changes that focus on improving maternal nutrition to ensure that babies are better adapted to the changing nutritional environment.

They point to some of the obstacles in the path of getting action on the long-term solutions to the crisis that New Zealand along with much of the rest of the world is now facing. "Politicians are inherently skeptical of any solution that has a long time scale (a cynic would say that it has something to do with the length of the electoral cycle)." A life-course approach is sacrificed to the priority of keeping waiting lists to acceptable levels.

They also refer to the problem of the "large vested interest in the pharmaceutical sector, and indeed in the electorate, in retaining the focus of health care spending on the immediate problems of diseases which become manifest in the ageing population … because pharmaceutical companies tend to concentrate their efforts on diseases of the more affluent parts of the world where governments or individuals can afford to pay for medication." (1)

Despite the doomsday message, the authors of "*Mismatch*" end on a hopeful note:
"The science we have described in this book leads to an optimistic conclusion. The mismatch paradigm does not just result from our genes: if it did it would be very hard to correct. It involves our development and the environment we have constructed for ourselves, and aspects of each of these can be changed. Many aspects of our lives can be improved."

References:

1. Peter Gluckman & Mark Hanson "*Mismatch: The Lifestyle Diseases Timebomb*" Oxford University Press 2006
2. David Barker "Fetal Origins of coronary heart disease." British Medical Journal 1995;311:171-174
3. Michael Sargent "Unfit for modern life." *NATURE* Vol 445. 8 February 2007.

CORD BLOOD FEES 'WASTE' OF MONEY
NZ Cancer Expert Questions Lifesaving Claims

One of New Zealand's leading child cancer doctors is warning parents that paying to store their baby's umbilical cord blood is a waste of money.

Michael Sullivan, director of children's cancer research at the Christchurch School of Medicine, said the $5000 cost would be better used to set up an education fund for the child.

Parents store the cord blood in case it can later be used to treat a range of diseases, but Sullivan said first-time parents were not getting independent information and faced pressure from other parents to store the cord blood. "There is no evidence storing cord blood can save a baby's life," he said.

The New Zealand College of Midwives agreed, saying it was concerned that private businesses were cashing in on the anxiety of first-time parents. It also said the cost was prohibitive. Midwifery adviser Lesley Dixon said there was a lack of unbiased consumer information and that there was no "relevant research showing it is useful in the long term".

Sullivan said cord banks worldwide used misleading advertising and displayed dubious ethics to encourage parents to store their baby's cord blood on the premise it could then be used to fight a number of diseases, or for various stem cell therapies. Cord blood is a mixture of primitive stem cells that can make blood and other tissue, such as nerves and muscle, if stimulated in the right way. CordBank, based in Auckland, is the only New Zealand cord blood bank. It charges a $500 non-refundable registration fee, $2000 for processing and $2500 for storage for 18 years. It boasts "many thousands" of customers.

CordBank spokeswoman Kate Carter issued a statement to the Sunday Star-Times claiming that two New Zealand children whose blood had been banked with CordBank were successfully treated - one girl for a neuroblastoma and another for a birth- related brain injury. "And we have a number of children who have their cord blood stored with CordBank, whose parents are interested in them receiving treatment for type one diabetes and cystic fibrosis."

Carter also said new research indicated that as many as one in 2000 people will receive a stem cell transplant during their lifetime. "It is important that parents have access to up-to-date information in order to make an informed choice as to whether or not they want to be in the position to take advantage of the many developing technologies involving umbilical stem cells," Carter said.

She also said more than 50 children had been successfully treated with their own cord blood at California's Duke University. However, Sullivan said that was a clinical trial and so far the data is "very premature" and hadn't produced any real results.

Sullivan has had an article on cord blood banks published in leading international science and medicine journal Nature. In that article he said commercial cord banks offer a superfluous service and their existence remains controversial, because clinical

evidence supporting cord blood storage is lacking, Sullivan said there were 150 private cord blood banks worldwide, with many of their websites duplicating details of "successful" case studies. He said his study had found 70 cases in which the baby's own cord blood was used in treatment procedures. "Of those, 50 were for a clinical trial and only three were used for the treatment of cancer."

While cord blood has been useful in treating leukaemia and lymphomas in children, Sullivan said it was important to remember that, in those cases, the patient's own cord blood could not be used for the procedure. "To treat leukaemia you need someone else's tissue so there is no benefit in banking the cord blood." He also said that, in the past 18 months, technology has overtaken the need to store cord blood. He said researchers have found a way to genetically manipulate skin cells, tricking them into believing they are a stem cell so they start behaving like one. The process is called "induced pleuri potency".

Susan Pepperell
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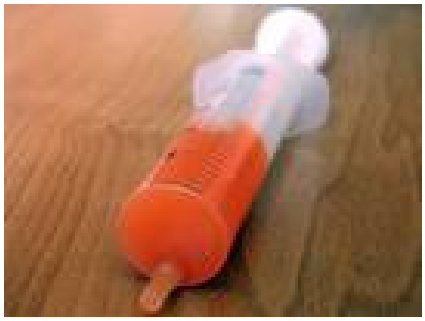

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UPCOMING CONFERENCES

SANDS Conference 2009

"A little life, not a little loss"

Date: Friday 7th & Saturday 8th August 2009

Venue: Waipuna Hotel & Conference Centre, Auckland

Fees: $110 one day/$150 Sands Parents full conference/$170 full conference

Hosted by SANDS Auckland Central, the biennial national SANDS conference is a forum for health/caring professionals and bereaved parents/families to come together, to share information & experiences of baby loss. The conference will be an educational programme seeking to raise awareness and promote understanding of baby loss. It will be an excellent opportunity to share knowledge and to listen and meet with others who may share similar jobs/experiences. The aim is to promote a better understanding of the short and long term effects of grief following the loss of a baby. For preliminary information & registration details contact Claire or Tania at SANDS Auckland Central.

4th Biennial Joan Donley Research Forum

Date: Thursday 17th & Friday 18th September 2009

Venue: The Rutherford Hotel, Nelson

For all registration enquiries please contact:

Kim Gerard and Trish Scott, Confab Conference Event Consultants

Phone: 03-332 3085 Email: confab@confab.co.nz

National Homebirth Conference 2009

"Birth Without Fear"

Date: 9th, 10th and 11th of October 2009

Venue: Christchurch

To register your interest in attending the Conference, please return contact the Canterbury Homebirth Association. conference09@canterburyhomebirth.org.nz