PRETERM BIRTH PREVENTION – A JOINT EFFORT TO IMPROVE CHILDHOOD OUTCOMES AND ADULT HEALTH

by DR CHRISTOPH LEHNER

Dr Christoph Lehner and the Preterm Birth Prevention Team.

In times of uncertainty like this we are very fortunate to live in a country like Australia. By "doing the right thing" and working together we manage to live a semi-normal life again after months of lockdown for the majority of us. The fact that we can host a sporting event like The Australian Open in front of thousands of spectators is the envy of countries overseas – I realised this last night when I watched the German news.

This pandemic has taught us that we have a shared responsibility to achieve the goal of a healthier society. Although this seems to work well during this pandemic, a different major threat to the health of our community has not been addressed in a similar collaborative effort thus far – Preterm Birth, birth prior to 37 completed weeks of gestation.

The rate of preterm birth in Australia has been steadily rising over the last 25 years and reached 8.7 % in 2018[1]. Complications of being born too early are the leading cause of death among children under five years of age[2]. Prematurity can result in significant disability, deafness, blindness, cerebral palsy, behavioural and learning difficulties in those children who survive; it often puts a lifelong strain on affected individuals and their families. Preterm birth is also a major risk factor for early onset of chronic diseases in adults[3] and its socioeconomic impact is significant. It is obvious that time is pressing. Over decades, professional societies have updated guidelines in the hope to decrease numbers of babies born too early – unfortunately without any major success. Preterm birth rates continue to rise worldwide[4] and it is important that we change our approach on how to take up this enormous challenge.

The reasons for the increase in preterm birth are multifactorial. Social disparities are obvious in our society. Advanced maternal age, multiple pregnancies, gestational diabetes and obesity have all become more prevalent and certainly contribute to the rising rate of early birth. With advances in modern healthcare, women with underlying complex medical problems are planning to conceive now, when they would have been advised against pregnancy 30 years ago. So often, pregnancy complications arise in these women resulting in preterm birth. Current research into immunological pathways to better understand the pathophysiology of early birth will help to establish novel interventions in an attempt to prevent preterm birth in the future. The key however, to ultimately lower the rate of early birth, is the collaborative holistic approach to preterm birth prevention which has received more attention in recent years.

Midwives play a pivotal role as they can accompany the woman's entire pregnancy journey and offer continuity of carer in a public health system where fragmentation of care often results in adverse obstetric outcomes. It is now well documented that midwifery continuity of care models have been shown to reduce the risk of preterm birth by 24 % compared to other models of care[5].

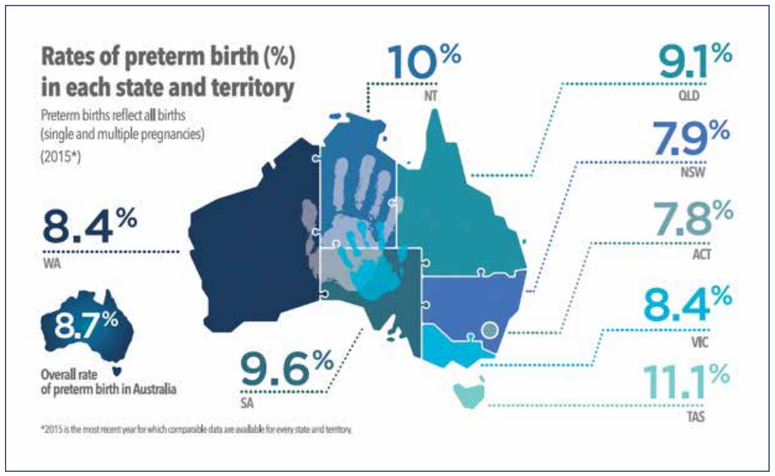
Continuity of carer is particularly important in vulnerable or disadvantaged groups of women. In the Northern Territory the preterm birth rate is 10 %, 17 % in the Indigenous population[6] - almost double the average national rate. Socially disadvantaged communities such as Aboriginal and Torres Strait Islander people are more likely to be faced with significant risk factors for preterm birth e.g. polysubstance abuse, smoking, alcohol consumption, a history of preterm birth, young maternal age, low maternal education and current infection of the urogenital tract[7]. Similar applies to women of refugee or migrant background. Kildea et al.[8] confirmed that targeted innovative interventions and a redesign of maternity care provision can significantly reduce the rate of preterm birth in our Indigenous population. In this prospective interventional cohort study, provision of a culturally sensitive model of care ("Birthing in our community") resulted in a 50 % reduction of preterm birth compared to standard care. The "Birthing in our community" service comprised midwifery continuity of carer, an Indigenous workforce strategy, integrated family service and provision of an Indigenous-controlled community-based hub including Indigenous governance and partnership Steering Committee.

The Australian Preterm Birth Prevention Alliance was formed in 2018 with the singular aim to safely lower the rate of preterm birth across Australia. 30 members from each of the six states and two territories represent the fields of obstetrics, midwifery, neonatology, health economics, biostatistics, health policy, consumer representation, philanthropy and media and marketing. Together they sit on a Steering Committee led by the Senior Australian of the Year 2020, Professor John Newnham. Eight key interventions (Table 1) have been approved and endorsed by the Alliance and midwives play a fundamental role in the early identification of risk factors for preterm birth and initiating intervention when necessary.

Midwives are in a unique position to identify risk factors early by building rapport and trust with the woman. This will enable the midwife to encourage positive changes in lifestyle factors at the beginning of the pregnancy. Offering Quitline support with the aim of smoking cessation and addressing passive smoking in the domestic environment are important to be discussed as early as possible. Dietary screening for omega-3 fatty acid intake in early pregnancy identifies women at risk and supplementation can be initiated if indicated. Taking a detailed history and reviewing ultrasound scans at the booking-in visit will enable the midwife to refer a woman early for obstetric review. Every woman with a history of preterm birth or a short cervix should be offered natural vaginal Progesterone pessaries[9]. This can be initiated by the General Practitioner in the community. Working together on multiple levels within our health care system will help to ensure that women at risk receive appropriate care according to their individual needs. Multidisciplinary care should be offered involving allied health services such as social workers and dieticians, Indigenous liaison, midwifery, obstetric and medical services.

"Tempora mutantur, nos et mutamur in illis" – "Times are changed, we also are changed with them"

This saying dates back to the 16th century but possibly has never been more on trend than now. We know that two thirds of women in highly developed countries who give birth early have no identifiable risk factors for preterm birth[10]. Yet we continue to draw our attention to the woman at risk in our daily clinical practice hoping future research findings will give us the answer on how to address this conundrum. Three-quarters of deaths secondary to preterm birth complications could be prevented with current, cost-effective interventions[11]. Yet we are still struggling to offer vulnerable women at risk access to continuity of care models to



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avoid the detrimental effects of care fragmentation – particularly in regional, rural and remote Australia.

Maybe our focus needs to change. There is no doubt that it will need a joint effort to lower the rate of preterm birth in the long term, involving every single one of us providing woman-centred maternity care. The Australian Preterm Birth Prevention Alliance is now well established across Australia and will provide a platform to lead this innovative and novel approach. Midwives, General Practitioners, Obstetricians, Allied Health Services and last but not least – the woman and her family – all play an integral part. Our responsibility is to drive education and research, translate research findings into clinical practice, identify the woman at risk and offer culturally sensitive maternity care addressing every aspect of the woman's complex needs. By "doing the right thing" again I am optimistic we can reach our goal – a safe reduction of preterm birth across Australia. This will result in improved health of our mothers and children and ultimately in health and economic benefits for our entire country.

The Australian Preterm Birth Prevention Alliance
www.pretermalliance.com.au

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THE MIDWIFE **GRANDMA**

by CAROLYN HILSABECK, Midwife

"Ma, we are having a baby! Can you help us out with a Midwife?!"

This was the moment when my son asked me for help in finding a midwife after he told me his wife was pregnant with their first baby; my first grandchild! That he would put his faith in my team to care for his wife and oversee the birth of their baby filled me with emotion and pride. All my children can tell you how important "skin to skin" is and often tease me about it. I was so relieved when it became evident that Daniel and Stacy shared these beliefs and their wish was to have a normal birth with no intervention.

I am the Midwifery Unit Manager of the Midwifery Caseload Practice at Westmead Hospital. The skills and dedication of our Caseload team are a consistent source of awe and amazement for me, particularly the relationships they build with their women and the real sense of community they foster. I would trust each midwife on my team to care for any member of my family but it was certainly a hard decision when the time came to choose, if only because I also knew that it would be a daunting task looking after the Manager's son and daughter-in-law!

I chose Lynelle to care for Daniel and Stacy; I put them in her care as she helped them along in their journey to parenthood. Occasionally I heard that little voice, somewhere in my mind saying, "What if something goes wrong? Will they blame me?". But my faith in Lynelle triumphed each time – I quickly shut down that little voice, I was certain that she was a capable and careful guide, they were safe and secure in her hands.

Right from the beginning it was important that I did not interfere with any choices they made. That being said, I knew it was important that they were aware of all the choices and options available to them, so I encouraged Daniel and Stacy to attend a Calmbirth course. I had heard great things about it from my colleagues and Daniel and Stacy weren't disappointed. Daniel called me from somewhere in Kangaroo Valley as they drove home from Bowral after the course – he was positively gushing. He told me about all the things he had learned, how the course "answered questions he hadn't even thought of yet", and how much more empowered and prepared they both felt prior to the course.

Before long, it came time for the arrival of baby Amelie. After a short but intense labour, she was born gently and calmly into water, caught by her Daddy, and placed into her Mummy's arms. They were encouraged on the sideline by beautiful Lynelle. What a wonderful start to life! And yes, Amelie spent her first few hours of life skin to skin.

In the days following the birth, Daniel was amazed at the care they received from their midwife.

"Mum, what do other women do that don't know their midwife before the birth? How will the midwife know their birth wishes?"

"Mum, we got to go home five hours after Stacy gave birth, and Lynelle has come to visit every day for the last five days…how is this possibly a free service!?"

After he realised that only about 10% of women receive this amazing continuity of care, he told me he was going to shout from the rooftops and spread the word to all he knows about the benefits.

When discussing how they could ever possibly thank their midwife with a gift, I suggested he write her a poem to reflect the role she played in their journey to parenthood.

I wept when I read this beautiful poem. Daniel has truly captured the essence of the midwife. The birth of my beautiful granddaughter has strengthened me to continue to advocate for the growth of our Caseload team and to explore ways of ensuring the sustainability of midwives working in this model.

THE MIDWIFE'S HOUR

By Daniel Tranter-Santoso

There is a dark before the dawn
When most are sleeping sound,
It grasps the brink where life is born;
The early midwife's hour.

No lamp she bears, or candle flame,
Yet light, she seems to hold
Within herself, and all the same,
She welcomes newborn souls.

Fearfully made, these wondrous lives,
Each one imprints its mark.
The blessed work, through years gone by,
Has never lost its spark.

Though not the one who knits our life
Within our mother's womb;
She is but still appointed guide:
To midwives, deeply, thank you.