

MOST PRECIOUS ONE

Globally, the infant mortality rate has more than halved in the past three decades, from an estimated rate of 64.8 deaths per 1000 live births in 1990 to 30.5 deaths per 1000 live births in 2016. Still, that translates to 4.2 million infant deaths – 4.2 million grieving families – every year. Advances in technology, education and earlier intervention have played a big part in this steady decline, but innovation and invention never cease, and there is always opportunity for things to be done better. With maternal and child health one of Rotary’s six *Areas of Focus*, we take a look at how Rotarians across our regions are doing their part to ensure every child receives the best possible start to life.





PREM Bank gives preemie babies best start in life

 The first of its kind in Australia, the Perron Rotary Express Milk Bank (PREM Bank) collects breast milk from healthy, screened donors to help babies in need.

Breast milk is increasingly understood as vital to ensuring the best possible start to a baby's health, growth and development. It is even important for preterm infants. Studies suggest it plays a vital role in helping to protect against gastrointestinal and respiratory illnesses and improving neurological outcomes, resulting in a shorter stay in the neonatal intensive care unit (NICU) and overall lifetime health.

Mothers of premature babies can sometimes have difficulty establishing their milk supply. Alternatively, premature birth can sometimes be caused by a maternal illness that can also affect a mother's ability to produce sufficient breastmilk. In these cases, pre-term and ill infants often require an alternative source of nutrition.

Artificial formulas can be used to supplement nutritional intake in NICU. However, this means babies miss out on the significant short and long-term immune benefits breast milk provides – benefits that can make all the



difference to the prognosis of infants facing a difficult start to life.

The PREM Bank was established at the King Edward Memorial Hospital for Women, WA, through collaboration between the hospital's Neonatology Clinical Care Unit, the Rotary clubs of Belmont and Thornlie, WA, the University of WA, the Women's and Infant's Research Foundation, The Perron Charitable Trust, Telethon and Medela.

Donor milk is collected in a manner similar to blood donation. The milk is then pasteurised and made available at no cost to recipients. The PREM Bank is now internationally recognised as a leading safe and ethical practice in donor human milk banking. Many of the practices introduced to milk banking during the establishment of the PREM Bank are now required in milk banks around the world.

Thanks to PREM Bank, but, more importantly, its almost 1000 donors, 9500 litres of donor milk have been provided to almost 3500 premature babies since the bank opened in 2007 – making a real difference to thousands of young families.





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Rotary Community Breast Milk Bank Charitable Trust Inc

 The brainchild of past District 9970 governor Liz Courtney, the Rotary Community Breast Milk Bank Charitable Trust Inc. was established to address a shortage in New Zealand’s donor milk supply.

Christchurch is the only centre in New Zealand with an operating milk bank, situated in the Neo Natal Intensive Care Unit (NICU).

The trust is supported by the Rotary clubs of Garden City, Christchurch, Papanui and Riccarton and has received a district grant and sponsorship for equipment and set-up costs from several trusts, the NZ Midwives Association and personal donations. Relying solely on donations, continued fundraising is necessary to meet the running costs of the operation.

During a visit to Perth, Liz, now vice-chair of the Rotary Community Breast Milk Bank Charitable Trust Inc., met with manager of the Rotary Breast Milk bank, Dr Ben Hartman, which gave her the opportunity to understand the challenges and issues they faced and what needed to be considered moving forward.

After gathering a professional team of three Rotarians, a national lactation consultant, a gynaecologist-urologist and midwife, the trust worked with the Canterbury Health Board Neo Natal staff and St George’s Hospital in Christchurch to bring the project together.

The Rotary Milk Bank will initially be open one day a week to receive donor milk and dispense it once pasteurised, with the aim to open five days a week in the future. The milk bank will be staffed by volunteers, including many Rotarians.



Settling for sleep in a Pepi-Pod sleep space across her father's knee. (Photos: Courtesy of Change for our Children Limited)



Pepi-Pods reducing SUDI cases in Oz and NZ

In Australia and New Zealand, around 200 babies die suddenly in their sleep every year.

Sudden unexpected death in infancy (SUDI) includes sudden infant death syndrome (SIDS) as well as accidental deaths in which the cause is not immediately apparent, such as asphyxia. Safe sleeping practices are key to SUDI prevention, with accidental suffocation the leading cause of death.

In New Zealand, Maori babies are far more likely to suffer SUDI, due to the custom of bed-sharing as well as higher smoking rates – another prominent risk factor. Between 2009 and 2011, 77 per cent of New Zealand SUDI victims were Maori.

To combat this, Rotarians have put their support behind the Pepi-Pod program. Modelled on the traditional Maori *wahakura*, or sleeping basket, Pepi-Pods are portable, polyethylene bassinets equipped with sheets and a merino blanket. It can sit on an adult mattress alongside parents, but creates a safe space around the baby, significantly reducing smothering risk.

Educational material on how to use the pods, and why, is also provided. This covers important principles such as ensuring babies are placed to sleep on their back and nothing is placed behind their head, which can put pressure on airways.



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The program was in development stage when the Christchurch earthquake struck. Their production was sped up due to the increased risk to babies as regular sleeping environments were displaced.

The Rotary Club of Manurewa-Takanini, NZ, has supported the program for many years through funding derived from the Alfriston Rotary Second-Hand Book Fair. The Rotary Club of Otumoetai, NZ, donated a further \$4600 through a fundraising golf day and district grant, providing 45 pods for the local community.

The rate of SUDI has been decreasing ever since the program started, dropping from one in every 1000 babies, to currently one in every 1282. However, the disparity between Maori and non-Maori victims is still present – and even one young life lost is too many.

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There are now moves to introduce wide-scale uptake of Pepi-Pods in Australia, in response to the alarming data that Australia’s infant mortality rates are three times that of other OECD developed countries; for Australian Indigenous families the risk is increased threefold.

The University of the Sunshine Coast (USC) recently trialled Pepi-Pods in 400 families in 30 communities from the Gold Coast to Cape York. Following the positive response, the Queensland government announced it will commit to purchase 600 Pepi-Pods for young mothers aged 15-25. These will begin to be distributed through participating health services in August. Interstate interest has been roused, with trials set to begin in Adelaide and Western Australia’s Kimberley region.



ABOVE: The Rotary Club of Townsville Central has helped the Townsville Hospital Neonatal Intensive Care Unit purchase a new Astodia Diaphanoscope. Director of Neonatology Professor Guan Kho and Neonatal Nurse Practitioner Megan Murphy with the new Astodia Diaphanoscope. (Photo: Zak Simmonds/NewsPix)

“It’s a beautiful situation where the community is helping us to help the community, especially the most vulnerable members.”

Cutting-edge Neonatal Equipment Donation

The neonatal intensive care unit (NICU) based at Townsville Hospital, Qld, has purchased a cutting edge Astodia diaphanoscope thanks to a generous \$2000 donation by the Rotary Club of Townsville Central, Qld.

A diaphanoscope, or transilluminator, can be used to show the tiny blood vessels of premature babies. It is already in daily use by the NICU, which treats approximately 850 babies a year arriving for care from everywhere north of Rockhampton. Of these, around 200 are premature.

Director of Neonatology Professor Guan Koh described the new equipment as the “Ferrari” of its kind.

“We had one that was very cumbersome – this is good because it’s very portable,” he said. “I’m very heartened by the gesture. It’s a beautiful situation where the community is helping us to help the community, especially the most vulnerable members.”



**Books for Babies
– Celebrating 113 years
of Rotary International**

On the afternoon of February 22, president-elect of the Rotary Club of Adelaide West, SA, Bryan Hennig and club secretary Glenda Sherwin-Lane visited Adelaide’s Women’s and Children’s Hospital to distribute 113 copies of Mem Fox’s book, *Ten Little Fingers and Ten Little Toes*.

This popular club project celebrates the anniversary of Rotary International by giving a gift to babies and very young children who need a stay in hospital. But the book is also a gift of literacy.

Literacy starts from the moment of birth and it’s easy in a first-world country like Australia to overlook the fact that many of the babies born today are born into families where English is not the first language. Mums and dads receive the gift warmly and the club is grateful to have the hospital’s assistance on the project.

On this occasion, the hospital arranged for a member of its public relations staff to accompany Bryan and Glenda and ensured access to the various wards—post natal, intensive care and very sick babies. Copies were also left in the birthing suites. They were also accompanied by hospital’s photographer for part of the journey. The above photograph was posted on SA Health’s Facebook page along

“LITERACY STARTS FROM THE MOMENT OF BIRTH AND IT’S EASY IN A FIRST-WORLD COUNTRY LIKE AUSTRALIA TO OVERLOOK THE FACT THAT MANY OF THE BABIES BORN TODAY ARE BORN INTO FAMILIES WHERE ENGLISH IS NOT THE FIRST LANGUAGE.”

with an article referring to “... this special Rotary project” and “Literacy as a Rotary focus.”

The project is also an opportunity to highlight what Rotary has achieved

during the past 113 years in terms of literacy, child and maternal health and polio eradication. Many medical staff members are not aware of Rotary’s role in this major achievement.



Premature Birth Prediction could help millions

 Each year, the Rotary Club of Auckland Harbourside, NZ, chooses a medical cause to support through its glamorous Chinese New Year Gala Ball, which enlivens the SkyCity convention centre with dancing, fine Chinese cuisine and live entertainment, including traditional lion dancers.

This year's event raised funds for research into a mid-pregnancy blood test able to predict premature birth – a medical advance with the potential to help millions of mothers and babies worldwide.

Currently, there is no reliable way of predicting whether a woman will give birth early. Around 60 per cent of premature births occur spontaneously, without any warning or prior history.

The research undertaken by the Liggins Institute and the University of Auckland Medical School is on track to change this. A pilot study identified a unique molecular fingerprint in blood taken from women at 20 weeks of pregnancy who went on to give birth prematurely; this fingerprint was not



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present in samples taken from women who delivered at term.

The funds raised will be directed towards following up the pilot study with a two-year study, which will test a bigger pool of samples, including samples taken at 15 weeks as well as 20 weeks.

The research has the potential for tremendous global impact. Worldwide, over one in 10 babies are born too early. If born before 24 weeks, a baby's chance of survival is slim. Babies born after this stage still require enormous care and carry a greater risk in later life of learning difficulties, cerebral palsy,

growth, obesity and diabetes.

If a reliable test for mothers can be developed, targeted therapies could be provided to delay or even prevent preterm births. "This has the potential to lead to a huge advance in clinical practice," said study co-lead Professor Lesley McCowan from the Obstetrics and Gynaecology Department at the University of Auckland Medical School.

"Success of this project will not only benefit New Zealand but the whole world," said Donald Sew Hoy, member of the Rotary Club of Auckland Harbourside. "We're proud and honoured to be asked to assist."

Rotary Foundation Vocational Training Team in Raipur

Every five minutes, three women and 20 babies die during childbirth, 99 per cent of these in developing countries.

In early 2016, past Rotary International director Dr Ken Collins joined the Maternal and Child Health Action Group and, on learning that 343,000 mothers and one million babies die each year associated with childbirth, he resolved to do something about it.

He quickly gathered a team of two obstetricians, (Dr Barry Mendelawitz, of the Rotary Club of Applecross, WA, and Dr Catherine Douglass) and two midwives (Clare Davison and Carol Pinch – who later withdrew from the team, was replaced by Belinda Jennings). As India has one of the highest mortality rates, Ken contacted past Rotary International president Raja Saboo for advice in which area to serve. Raja recommended Raipur in the state of Chhattisgarh and contacted then District 3261 governor Deepak Mehta, who subsequently assigned PDG Shashi Varvandkar to work with the team.

With the aid of a Rotary Foundation district grant, Ken, Barry and Carol travelled to Raipur in September 2016, meeting with government and medical officials as well as local Rotarians, who all embraced the idea of the full team



The Raipur team: past Rotary International director Dr Ken Collins, left, midwife Belinda Jennings, Gynaecologist Dr Barry Mendelawitz, past district governor Shashi Varvandkar, midwife Clare Davison and gynaecologist Dr Catherine Douglass.

travelling to Raipur in February 2017 and February 2018, funded by a Rotary Foundation global grant.

During the 2017 visit, 20 trainees attended, consisting of six doctors, six nurse/midwives and eight midwives. Some of the training modules, such as role playing and workshops, were new to India and were well received, as was the supply of training aids left behind by the team.

Eight of the trainees excelled and were chosen as “Master Trainers” and by the time the team returned in 2018 they had trained a further 500 health workers.

When the team returned in 2018, they spent the first day with the Master Trainers, revising their medical training and providing specialised skills as educators. During the next two days, 20 new

trainees attended from three districts and were trained by the Master Trainers under the supervision of the visiting team. All performed admirably.

Several reported that, thanks to the training, they had saved the lives of several babies.

The final day was spent at Parliament House meeting with the Chief Minister and the Health Minister, who praised the team for its achievements and pledged ongoing support, including the possibility of sending the Master Trainers to Perth at the Indian Government’s expense so they may have experience of obstetrics in Australia.

It was universally acclaimed that the project, a Rotary Foundation global grant organised by the Rotary Club of Freshwater Bay, WA, had gone a long way to helping reduce maternal and child mortality in the State of Chhattisgarh.



ABOVE: Past district governor Shashi Varvandkar with midwife Belinda Jennings providing training. RIGHT: Dr Barry Mendelawitz and health workers practice with a mannequin.



Frankston ultrasound donation

 The Rotary Club of Frankston, Vic, donated \$20,000 to the Frankston Peninsula Health Hospital towards the purchase of a new ultrasound machine for the antenatal unit.

The impressive contribution was raised through the club's monthly Seaford Farmer's Market, barbecues, social functions and car rallies. A cheque was presented to the obstetrician and gynaecologist Dr Sarah Roberts, who thanked the club profusely. Their donation will help better ensure the wellbeing of babies and mothers in the community.

The club recently also assisted children's causes through generous donations to Interplast and the Wheelchairs for Kids project, which provides wheelchairs to disabled children in developing nations.

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Obstetrician and gynaecologist Dr Sarah Roberts, left, Peninsula Health chief operating officer – acute services Brendon Gardner, clinical director of women's health Dr Jolyon Ford, past president of the Rotary Club of Frankston Kevin Wallis, and then president-elect Terry Schneider with the new ultrasound machine.



Wedding gift to Coral Coast

 The Rotary Club of South Launceston, Tas, helped provide a transportable incubator for premature babies born in the Coral Coast region of Fiji.

The opportunity came about as a result of club member Toni Binns and sister Janet. Toni had travelled to the region in 2015 in relation to the club's Small Islands Supporting Big Futures RAWCS project and shared many stories with her sister.

Janet had also travelled to Fiji on a holiday that took a severe turn when she became ill. During her treatment, she came to see first-hand the limited medical resources and overall poor infrastructure accessible to Fijians.

With this in mind, when planning her wedding Janet and her fiancé John decided to ask their guests for donations rather than presents, with the money set aside to purchase something significant needed by the Sigatoka Hospital.

Rotarian Marilyn Briggs met with Dr Amos Zibram on several of her trips to Fiji last year to discuss what the hospital saw as high priority. At the top of the wish list was a transportable incubator for use in their ambulance. The only choice at the time for babies born prematurely at the local Sigatoka Hospital was to be transported 'skin to skin' with their mother via ambulance to the Lautoka Hospital, located two hours away.

The cost of the \$8485 incubator was covered entirely by wedding donations. It was put straight to work helping babies in need.

"When I visited the hospital in late November, Dr Zibram said the incubator is being used on average twice a month. That's lots of bubs having an easier start to life," Marilyn said. "This has been a wonderful opportunity for the Rotary Club of South Launceston to continue its support of Fijian villages, thanks to Janet and John's generosity."