Our nurses come out on top

New meningococcal protection
Cancer detection breakthrough
Country health services bloom
Search for the origin of asthma
From the DG’s desk

Welcome to the 2017 winter edition of Healthview magazine.

It has been a year since the WA health system reformed how it delivers better health, better care and better value to the people of WA.

It was recognised that the best and most efficient way to allocate our essential services was via a model that delivers health care closer to home through decisions made closer to home.

This has been achieved by the creation of five Health Service Boards, which are responsible for the running of their health services in their own geographical or service area.

Momentous though this change was for our public health system, it was really just another step in the ongoing reform of our system to deliver better outcomes – clinically and financially – to the people of WA.

The State Government recently announced the Sustainable Health Review, which will point the way forward for us to put the health system on a sustainable financial footing, while continuing to deliver safe and quality health care.

There is no question our system is under pressure. With health costs rising at an unsustainable rate and faced with an ageing population and rising chronic disease rates, the Sustainable Health Review is a response to these critical challenges for our State.

I look forward to working as a member on the review panel, which will be chaired by Robyn Kruk, a distinguished public servant and former Director General of NSW Health. Our recommendations to the Government are due to be delivered in March 2018.

This issue of Healthview reinforces why we have a great health system and a dedicated workforce.

Articles within showcase our quick-thinking staff providing swift and effective care that has saved people from life-long suffering, and our high-performing researchers investigating the use of stem cells to treat blood disorders and the origins of asthma.

We also celebrate our midwives and nurses who were recently recognised at the Nursing and Midwifery Excellence Awards and those who have clocked up 50 years of incredible nursing service.

Healthview also issues a timely reminder that – with winter and the ‘flu season upon us – there is still time to be vaccinated against this illness. Join me and avoid a trip to our emergency departments during the peak winter months by getting vaccinated against influenza.

Please enjoy this edition of Healthview.

Dr D J Russell-Weisz
DIRECTOR GENERAL

Flu vaccine fit for the fit and healthy

WA Health is urging people – even those who are fit and healthy – to get the influenza (flu) vaccine now before the flu season peaks.

WA Health’s Medical Coordinator for the immunisation program Professor Paul Effer said flu was a highly contagious illness that could cause serious health complications, with more than one in five Western Australians with laboratory confirmed flu hospitalised in 2016.

“Worryingly, Department of Health data has showed a decline in people getting vaccinated, particularly in at-risk groups such as young children and people aged over 65 years,” Dr Effer said.

“It can be easy to think that you will shake off the flu like you would a cold, but flu causes unpleasant and serious symptoms, even in healthy adults, and recovery can take days or even weeks.

“We also encourage those who are at-risk to get vaccinated, particularly in at-risk groups, for example, young children and those aged over 65 years,” Dr Effer said.

“People who are otherwise fit and healthy can still get seriously ill; for example, most childhood flu-related hospitalisations and deaths occur among children without underlying medical conditions.

“The decision to get vaccinated not only protects you, but others around you. When you catch the flu, there is a high risk of infecting others with whom you can be a dangerous illness”.

The flu vaccine is free to eligible at-risk groups including young children, Aboriginal people aged 15 years and older, pregnant women, people aged 65 years and older and those with chronic medical conditions.

Visit healthwa.wa.gov.au/immunisation to learn more.

Flu fact file

Children

When young children are infected with flu, they can quickly develop serious illnesses, including diarrhea and vomiting or fits and even death. Last year, nearly a quarter of all diagnosed cases of flu were in children, and 15 per cent of those were hospitalised.

Pregnant women

Pregnant women are at high risk of complications from flu. Changes in immune, heart and lung functions during pregnancy make it more likely for them to get seriously ill from the flu. This can also be dangerous to their unborn babies because severe illness in the mother increases the chance of serious problems including premature labour and delivery.

Elderly

The body’s immune system becomes weaker with age. Last year, 722 over 65s were hospitalised with flu related symptoms in Western Australia. Alarmingly, fewer people in this age group are being vaccinated against flu – just 56 per cent got the flu vaccine in 2016 compared to 64 per cent in 2014.
Breast cancer detection breakthrough

A ground-breaking WA innovation that is set to lower the number of breast cancer patients needing multiple surgeries is being commercialised in Western Australia.

The hand-held imaging device was developed by biomedical engineers from the University of Western Australia with clinical input from Department of Health surgeon Christobel Saunders and pathologist, Bruce Latham.

Commercialisation of the tool shows that researchers and innovators no longer need to look outside this State to bring their innovations to market.

The device improves the safety and reliability of lumpectomies, a procedure in which cancerous breast tissue – along with a small portion of surrounding tissue – is removed.

Now a medical device company – OncoRes Medical – has been established in Western Australia specifically to commercialise the product and make it available world-wide.

Currently tissue excised during lumpectomies is sent to a laboratory post-operatively for testing. If the surrounding tissue is found to contain cancerous cells, the patient will be called back for a second round of surgery to reduce the risk of the tumour returning. This happens in about a quarter of cases.

The new tool is set to change this by enabling surgeons performing lumpectomies to delineate between cancerous and healthy breast tissue during the procedure itself. This ensures sufficient tissue is taken during the initial surgery.

OncoRes has been set up with investment capital from the Medical Research Commercial Fund (MRCF), a fund designed to support early-stage development and commercialisation of products stemming from Australian universities and medical research institutes.

So far OncoRes Medical has received a commitment of $4 million from the MRCF, with a further $2 million expected, on the attainment of specific milestones.

The State Government is a founding member of the MRCF. Through the departments of Health and Commerce it has committed $2.67 million for the period 2007–2022.

WA patient blood management on world stage

A Western Australian study into a patient blood management (PBM) system has attracted worldwide interest following its publication in a leading medical journal.

The study, led by Royal Perth Hospital haematologist Professor Michael Leahy, found that a system-wide patient blood management program was not only associated with improved patient survival and reduced complications and length of hospital stay but also substantial cost savings.

The PBM program is designed to maximise use of a patient’s own blood to help avoid blood transfusions during hospital treatment.

In a recent edition of Transfusion, the journal of the American Association of Blood Banks, the researchers revealed that their study – the world’s largest to date – included 605,046 patients admitted to Western Australia’s four major adult tertiary-care hospitals over six years, with results showing:

- 28 per cent reduction in hospital mortality
- 15 per cent reduction in average hospital length of stay
- 21 per cent decrease in hospital-acquired infections
- 31 per cent decrease in the incidence of heart attack or stroke.

The researchers also reported that for the period of their study PBM reduced the use of blood products by 41 per cent, representing a cost saving of $16.5 million to the health system. Gross savings, which included costs associated with administering transfusions in the hospitals, were estimated at $80–100 million.

Professor Leahy said PBM was increasingly being used in hospitals around the world and was fast becoming the gold standard in patient care.

Chief Medical Officer Professor Gary Geelhoed, who was involved in the study, sees the PBM program as a critical part of good hospital management.

“With increasing demands on health and hospital budgets it is essential we continue to find ways to improve patient outcomes without compromising care. PBM is an excellent program which delivers both,” he said.

For many people, hospitals are associated with illness, grief and hardship.

But for Aboriginal Liaison Officer Victor Howell, walking the corridors of Fiona Stanley Hospital (FSH) evokes a sense of great pride.

Victor’s passion for helping others was awakened after a chance conversation with a relative, who mentioned the local District Aboriginal Health Action Group (DAHAG) was looking for members.

Keen to learn more, Victor joined the DAHAG (as it was then known) and before long found himself chairperson of the group.

“I really enjoyed the challenge of being a link between my community and health services,” Victor said.

“It gave me an insight into the challenges faced by the health service in delivering care, as well as the challenges Aboriginal patients face when trying to navigate the system.

“The DAHAG meetings gave us a seat at the table with service providers, enabling us to access information and build mutually beneficial relationships,” FSH is a long way from the mechanic’s workshop where he started his working life, and Victor credits his career progression to the support he’s received from fellow Aboriginal health workers.

“Through the DAHAG, I met a couple of mentors who really encouraged me to pursue my interest in health more seriously,” he said.

“I decided to complete my primary health care training, which really helped me to understand how the health system operates and how to work within it.

From there, more opportunities opened up including a role as an Aboriginal health professional as part of the Aboriginal Health team working in the prison system, which Victor said was a real eye-opener.

“It was here that I learned how important it is to provide a sense of cultural connection and familiarity for Aboriginal people accessing health care,” he said.

In his current FSH role, Victor helps build trust and communication between Aboriginal patients and clinical staff.

“Some patients I work with might never have seen a doctor in their lives, so they may not recognise or understand what’s happening to them,” Victor said.

“It’s my job to help build a sense of respect and trust to help them feel more comfortable in the healthcare environment.

“When people fully understand what is happening to them, they are much more likely to participate willingly in the process and this makes for better patient outcomes,” Victor said.

Victor said he had always wanted to give something back to the community but the encouragement of others helped him develop the confidence to put himself forward.

“With their encouragement, I have been able to pursue a meaningful career and to be a role model for others in my community,” he said.

“Knowing I am helping Aboriginal people to get better health outcomes is hugely satisfying.”

Victor smooths the path for patients
Twenty of Western Australia’s most dedicated nurses and midwives were honoured recently at the 2017 WA Nursing and Midwifery Excellence Awards held over a gala dinner at the Perth Convention and Exhibition Centre.

Graylands mental health nurse Amy Wallace took out the night’s highest accolade – Western Australia’s 2017 Nurse/Midwife of the Year.

The 2017 Lifetime Achievement Honour was awarded to Edith Cowan University’s Professor Di Twigg.

Chief Nurse and Midwifery Officer Karen Bradley said the winners were chosen from a strong field of 33 finalists, representing all levels of experience, and work and practice environments throughout Western Australia.

“Western Australia’s 38,000 nurses and midwives play a critical role in the State’s health system and are at the forefront of ensuring compassionate, safe and cost effective care,” Ms Bradley said.

“These Awards provide the wider community with an opportunity to recognise and reward our nurses and midwives for the valuable contribution they make each and every day.

“All finalists were nominated by their colleagues and patients as exemplary nurses and midwives who are making a significant difference to their professions, their organisations and to the health of Western Australians.”

More information and photos of the winners can be found at www.wanmea.com.au
Heartbreak spurs life-saving donation

A Toodyay family’s heartbreak at losing their much loved daughter and sister may soon be helping spare other families a similar tragedy.

Wendy and Darryl Sofoulis, along with sons Zak and Matt, travelled from the small Wheatbelt town to King Edward Memorial Hospital in Subiaco recently to present Genetic Services of Western Australia Director Nick Pachter with a $17,000 cheque.

The money will be used to support a new cross-disciplinary clinic that is working to find answers for people with unexplained heart problems – potentially saving lives.

The donation came from the proceeds of fundraising efforts held in honour of Alecia Sofoulis, a vibrant 27-year-old who died unexpectedly and without warning of Sudden Arrhythmic Death Syndrome (SADS) in 2011.

Alecia’s death was a devastating shock, for her close-knit family who two days earlier had spent Christmas together and gathered again on Boxing Day for a picnic at Lake Leschenaultia.

The previous week they had celebrated Alecia’s 27th birthday. Wendy says her daughter had been a generous, outgoing and hard-working young woman who had worked two jobs to put herself through university. She had horses and led a healthy lifestyle.

With no family history of heart problems, the death of her otherwise healthy daughter was an absolute shock. Five and a half years on they are still no wiser as to the exact cause of Alecia’s death though it is suspected she had a rare genetic condition.

The Sofoulis family is hoping that with the help of their donation, the cross-disciplinary clinic (that is organised through Genetic Services WA) will be able to continue to work to find answers for families like theirs – and potentially even identify people at risk so that preventative measures can be taken.

Wendy said the fundraising began after the local football team asked her family if it would mind them holding an annual match between Toodyay and Mt Helena in honour of Alecia’s dedication to the clubs. Alecia had strapped for both.

Money raised from the annual football games and from a “Butterfly Ball” – which Wendy organised, three years later to mark what would have been Alecia’s 30th birthday – helped provide 4 defibrillators for Toodyay and $2000 for the SADS Foundation, SADS Australia.

Keen to see further funds used to improve knowledge about Sudden Arrhythmic Death Syndrome, Wendy and her family organised another ball in 2016 and combined the proceeds of that ball with money from the annual football match to provide the recent donation to the clinic.

Study helps prepare for Zika threat

Australian health authorities will be better prepared for an outbreak of the Zika virus here following a new study that has examined the prevalence of microcephaly across our population over the past 35 years.

WA Health was a key contributor to the research which was the cover story of a recent Medical Journal of Australia.

The study was undertaken following a call by the World Health Organization for further information on microcephaly from countries of known transmission of Zika virus and areas at risk of such transmission.

Microcephaly is a birth defect and babies born with it have a smaller than normal head. The condition has been linked to the mosquito-borne Zika virus, which spread to the Pacific Islands and parts of the Americas recently.

The researchers said that determining baseline data on microcephaly rates would help health authorities monitor any domestic outbreak of the Zika virus, in the event of an outbreak here.

The new study identified genetic disorders and fetal alcohol spectrum disorder (FASD) as the leading causes of microcephaly in Western Australia.

The Telethon Kids Institute (lead author Dr Michele Hansen and Professor Carol Bower) partnered with King Edward Memorial Hospital (Dr Gareth Baynam) and the Department of Health’s Communicable Disease Control Directorate (Dr Paul Armstrong) in an analysis of the Western Australian Register of Developmental Anomalies.

The study revealed an average of five cases of microcephaly per 10,000 births. The researchers said that although local transmission of Zika virus had not yet been reported in Australia, the risk of it occurring was real given that a species of mosquito found in northern and central Queensland, Aedes aegypti, was known to spread the disease.

Returning travellers to Australia who were infected with Zika virus overseas could infect these local mosquitoes and cause an outbreak.

The Aedes aegypti mosquito was previously widespread in Western Australia and, with frequent air traffic from countries where it is still common, there is an ongoing risk of re-introduction to this state.

Examining the Western Australian Register of Developmental Anomalies, the researchers found:

- that of 963,126 births between 1980-2015, 478 cases of microcephaly were recorded – an overall prevalence of 5.0 per 10,000 births
- annual rates of microcephaly ranged between 2.9 and 7.7 per 10,000 births per year
- more than one quarter of cases were detected after 1 year of age
- a cause was established in 45 per cent of cases
- in Aboriginal children, the most frequent cause of microcephaly was FASD
- in non-Aboriginal children, the most frequent causes of microcephaly were a combination of various rare genetic disorders.

Researchers said the study highlighted the need for clinicians to consider carefully all possibilities when diagnosing microcephaly, including emerging infections, genetic and rare conditions, and FASD.

Zika mosquito, Aedes aegypti, is not found in Western Australia, but authorities have to prepare in the event of an outbreak. Photo: Stephen L. Doggett
New app to quicken emergency response

St John Ambulance Western Australia is using a new smartphone app to enlist qualified first aiders who can respond to someone in distress before the ambulance arrives.

In an Australian first, the free St John First Responder app is designed to alert registered users to incidents occurring in public places within 500 metres of them.

The first responder, someone with appropriate first aid training such as off duty paramedics, doctors, nurses and members of the public, would then be dispatched to give the appropriate first aid, along with the closest ambulance.

The incident types that will trigger an alert include cardiac arrest, burns and allergic reactions.

St John State Operations Centre will always send an ambulance regardless of how many first responders are in the vicinity of the incident. It is expected the alert would perhaps be used 10 times a day, based on typical ambulance call outs.

The app also lists the location of registered defibrillators nearby, allowing first responders to be able to retrieve and use a defibrillator during a cardiac arrest.

The same technology has been used successfully in many countries overseas.

The app is available through the Apple or Google Play app stores. Search: “St John first responder.”

The Ralph and Patricia Sarich Neuroscience Research Institute houses treatment rooms, research laboratories and cryogenic archival storage.

Institute ready for research

The Ralph and Patricia Sarich Neuroscience Research Institute (SNRI) at Queen Elizabeth II (GEI) Medical Centre was officially opened by Her Excellency, the Hon Kerryn Sanderson AC, Governor of Western Australia on 26 April 2017.

Designed to accommodate four of the State’s premier neurological research organisations, the Ralph and Patricia Sarich Neuroscience Research Institute (SNRI) which was once an innovative research concept, is now a reality.

The new $37.7 million research facility will accommodate Curtin University’s Neuroscience Research Laboratory, the Ear Science Institute of Australia, Perron Institute for Neurological and Translational Research and Australian Alzheimer’s Research Foundation.

The construction of the five-level, 8,900 square meter building commenced in February 2015, and includes assessment and treatment rooms; tissue culture laboratories and facilities for neurodiscovery movement analysis, physiology research, experiments and cryogenic archival storage.

However the SNRI would not exist if not for the generosity of the Sarich family who donated $20 million towards the project. The State Government contributed a further $5 million, while $7.2 million was received in Lotterywest grants, $3.5 million from Curtin University, and $1 million each from the Wheatley family and the University of Western Australia.

North Metropolitan Health Service (NMHS) Board Chair and former Department of Health Acting Director General Professor Bryant Stokes AM steered the project from concept to reality since 2008.

“Professor Bryant Stokes has been a tireless advocate for a facility of this calibre. He was behind the initial proposal, and has seen the project through to its completion with the generous support of the donors.” NMHS Acting Chief Executive Philip Aylward said.

Tips to prevent the spread of colds and flu

Simple measures can reduce your risk of getting the flu, colds and other respiratory infections.

Protect yourself and others by getting the flu vaccination and practising good personal hygiene. Also be sure to:

- cover your nose and mouth when you cough or sneeze
- use tissues rather than handkerchiefs and dispose of after use
- wash hands often (especially after coughing or sneezing) with soap and water or an alcohol-based hand rub.
- avoid touching your eyes, nose or mouth. Germs spread this way.
- avoid close contact with sick people.
- stay home when sick and limit contact with others, particularly vulnerable people such as:
  - babies and young children
  - the elderly
  - pregnant women
  - people with chronic (long-term) illness such as lung disease.
- Clean keyboards, telephones and door handles regularly. Use water and detergent. Antibacterial cleansers (disinfectants) are unnecessary and might increase antibiotic resistance.

Be alert to signs of asthma

Just as colds and flu are more common in winter, the colder weather can also trigger asthma attacks. Breathing in cold air, wood smoke and mould associated with winter climates, can all induce asthma symptoms.

During an asthma attack the airways become narrow and the muscles in the airways squeeze tightly. The lining of the airways becomes red and swollen and the airways produce a lot of mucus.

Symptoms include coughing, wheezing, shortness of breath, tight chest and — in some severe cases — vomiting. Severe symptoms include gasping for breath, struggling to breathe and appearing pale and blue around the lips.

If you experience asthma for the first time, see your doctor for a diagnosis.

For severe or life-threatening asthma attacks seek urgent medical attention and phone triple zero (000) for an ambulance.

healthwa.wa.gov.au
Many households will use fires and heaters during the winter months, but it is important to ensure heating appliances are in good working order and situated in areas with adequate ventilation to prevent carbon monoxide accumulating indoors.

Avoid burning fuels such as charcoal briquettes inside of the house.

Any fuel-burning appliance is a potential source of carbon monoxide and a build-up of carbon monoxide in the bloodstream could lead to carbon monoxide poisoning, resulting in serious tissue damage or even death.

Carbon monoxide is a colourless, odourless and highly poisonous gas produced by the incomplete combustion of carbon – or a carbon compound – due to insufficient oxygen.

Common symptoms of carbon monoxide poisoning are:
- headache
- dizziness
- weakness
- nausea, vomiting
- chest pain
- confusion.

Don’t risk letting illness or health conditions spoil your holiday. Ensure medications and prescriptions are packed and stored correctly. It is a good idea to meet with your GP Before leaving to discuss any health issues that may impact on your travel plans.

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Diabetes is Australia’s fastest growing chronic disease. About 280 Australians develop the condition every day.

People living with diabetes are usually aware that the condition can affect their whole body including the eyes, nerves, kidneys, heart and other important body systems. But many may not know that diabetes can also cause complications in the mouth.

**Why a higher risk of oral disease?**

Oral disease in people with diabetes may occur due to poor blood glucose control, poor circulation (which reduces the body’s ability to heal) and certain medications. Smoking, sweet food and drinks will also increase the likelihood and severity of oral disease.

**What are oral diseases?**

People with diabetes are prone to several oral diseases including tooth decay, fungal infections and gum disease.

Slow healing after extractions or oral surgery can also occur due to the thickening of blood vessels, which delays the delivery of nutrients to tissues caused by diabetes.

**Tooth decay**

People with diabetes can also experience reduced saliva flow. A dry mouth encourages dental plaque to form on teeth which may lead to tooth decay.

**Fungal infections**

Diabetes lowers the body’s resistance to infection, with people more likely to experience oral fungal infections such as thrush. Oral thrush grows on the soft tissues within the mouth on the tongue, inner cheeks, tonsils and/or gums, along with redness and cracks at the corners of the mouth. This can cause difficulty swallowing and lead people to choose foods that are easier to eat but not necessarily suitable for their diabetes.

**Gum disease**

Gum disease is caused by bacteria which produce toxins and create gum inflammation. Mild gum disease (gingivitis) may result in inflamed and/or bleeding gums and bad breath; while moderate to advanced gum disease (periodontal disease) may result in the presence of pus from the gums or loose teeth. People with diabetes may also feel changes in their bite or notice spaces developing between their teeth, sometimes encouraging food to stick between teeth.

**Why is the management of gum disease especially important for people with diabetes?**

Over the past 10 years, research has shown that people with diabetes are 3–4 times more likely to develop periodontal disease.

People with diabetes are more susceptible to periodontal disease, which has the potential to affect blood glucose control and contribute to the progression of diabetes.

**Help prevent oral diseases**

**Oral hygiene**

- Brush teeth twice daily and use floss or interdental cleaners to clean between teeth.
- People with dentures (full or partial) should remove them overnight and clean them daily.
- Drink plenty of fluoridated tap water and chew sugar-free gum to stimulate saliva production.
- Visit your oral health professional regularly, even if you wear dentures, and seek morning appointments when insulin levels are more stable.

**Diabetes management**

- Keep blood glucose levels within target.
- Take all medications prescribed by your GP.

**Overall health**

- Quit smoking. Smokers with diabetes have a greater chance of having severe gum problems.
- Follow a healthy diet.

**Where to get help**

**Oral health**

- Your dentist or oral health professional.
- For your nearest private dentist, visit www.ada.org.au/Find-a-Dentist
- For your nearest public dentist, if you have a health care or pensioner concession card or if your child is aged 5–17 years visit www.dental.wa.gov.au or 9313 0555.

**Diabetes management**

- Your family GP.
- Diabetes educator.
- Diabetes Information and Advice Line (DIAL) 1300 136 588.

**Quitting smoking**

- Quitline 13 7848.
- "My QuitBuddy": Free personalised quit smoking app.

**Dietary advice**

- See an accredited dietitian for dietary advice. For more information visit www.nutritionaustralia.org/wa

**Top tips for older travellers**

Taking these simple steps before leaving home could help prevent health-related interruptions to your holiday:

- Pack your medications and repeat scripts.
- Ensure your medications are stored properly so they remain effective.
- Fill scripts ahead of time to avoid running out of medication.
- Request a list of current medications from your doctor or pharmacy.
- Keep your doctor, pharmacy, family and emergency numbers handy.
- Have a medication reminder system to ensure medications are taken on time. This could include setting an alarm.
- Bring a first-aid kit for managing small cuts and abrasions.
- Seek advice regarding travel insurance and ambulance cover before leaving.
When Jim Chrismas suddenly lost vision in his left eye in January, he knew something was terribly wrong.

A range of tests and investigations landed Jim in the Emergency Department (ED) at Fiona Stanley Hospital (FSH), where his condition was identified as central retinal artery occlusion – also known as eye stroke.

The rare condition is caused by a blockage of the main artery supplying the eye, often resulting in permanent vision loss.

After arriving in the ED, Jim was immediately taken to the Hyperbaric Medicine Unit (HMU) for hyperbaric oxygen treatment.

FSH Head of Hyperbaric Medicine Dr Neil Banham said oxygen treatment could reduce the risk of permanent eye damage, so it was important to act fast.

“Central retinal artery occlusion has a poor prognosis but hyperbaric oxygen treatment has been shown to improve outcomes by preventing irreversible retina damage from lack of oxygen,” he said.

Jim had eight sessions in the oxygen chamber and said he was tremendously grateful for the team’s intervention.

“The Hyperbaric and the ED teams were fantastic and I’m happy to say my vision has now returned to about 75 per cent,” Jim said.

He urged others who experienced sudden blindness to seek treatment urgently.

“If you suddenly go blind in one or both eyes, even if your vision returns a short time later, it could mean something is very wrong.

“The sooner you get treated, the better your chances of keeping your vision.”

Jim, a keen camper, recently had surgery on his carotid artery to remove the cause of the blockage and is looking forward to getting back into the great outdoors.
Health of the country blooming with new improved buildings and services

The multi-million dollar investment in country health infrastructure continues to roll out throughout Western Australia. Among recent developments, a new maternity unit and surgical department were officially opened at the Esperance Health Campus. The new maternity unit includes two new birthing suites with four private rooms and a level-one neonatal nursery facility catering for the care of infants requiring intervention in their first days of life. The surgical department has been upgraded and includes a brand new day surgery unit with its own entrance. The upgrades are part of a $32.75 million upgrade to the health campus which included an expansion of the emergency department and is expected to be completed by the end of 2017.

Harvey residents are now enjoying a range of health services delivered from a single site following completion of the $13 million Harvey Health Service redevelopment. In November last year, Harvey’s new emergency department opened to the public, streamlining services and providing efficient care for patients as well as incorporating the latest technology including the increasingly popular Emergency Telehealth Service (ETS). The redevelopment was staged to minimise disruption to patients and also included a refurbished aged-care ward, a new main entrance as well as improved community-based services, including outpatient facilities and new administration and reception.

Karratha Health Campus also provides valuable support to smaller regional hospitals in the West Pilbara including Roebourne, Tom Price, Paraburdoo and Onslow. The $207.15 million Karratha Health Campus (KHC) is being built in the town’s centre and will replace the ageing Nickol Bay Hospital. When it opens in 2018, the KHC will become the largest health infrastructure investment in regional WA’s history and will herald a new era in healthcare facility design for the Pilbara region. Modern, well-equipped health facilities including a significantly expanded emergency department, state-of-the-art CT scanning services, a brand new surgical centre, a new maternity wing and delivery suites, new and expanded outpatients and essential services such as child health and medical imaging will be grouped together under one roof bringing care closer to home for the local community.

Karratha Health Campus will also provide valuable support to smaller regional hospitals in the West Pilbara of works which are due to be finished mid-June will include two resuscitation bays, a treatment room, a clean utility/medication room, staff base, write-up room and ambulance bay.

Several artists have been commissioned under the State Government’s Percent for Art Scheme to create artworks for Merredin, Warren and Northam Health Services. Research has shown that the presence of art in a health setting can lead to better outcomes for patients.

Dwellingup artist Monique Tippett will draw on the natural environment found in the Wheatbelt to create five internal wall-based artworks and an exterior sculpture for Merredin Health Service. Western Australian artists Adam Cruickshank and George Domahidy will work together to create two freestanding artworks for Warren Health Service. An entrance structure will feature giant leaf-like structures and a water feature for the rear courtyard will represent a Karri sapling with a suspended giant water droplet. At Northam Health Service a team of artists led by Western Australian Lorena Grant will produce a series of paintings that will be photographed, printed onto a series of cement panels and applied to exterior screen structures, which will be placed at three locations around the health service.

Many of the small Wheatbelt hospitals have entered construction phase with buildings awarded for health services located in Bruce Rock, Corrigin, Kellerberrin, Karembeen, Kondinin, Dalwallinu, Quairading, Boddington, Kununoppin, Wyalkatchem, Goomalling, York, Southern Cross, Moora, Beverley, Jurien Bay, Wongan Hills.

The refurbishment of the Lake Grace Health Service is now complete. The upgrade included a refurbishment of the emergency department, a new waiting area, new office, storage areas for medical records and a pharmacy, a kitchen upgrade, reception, a public toilet and an ensuite in one of the wards. Design is underway and architects have been appointed for the new Mullewa Health Centre. The new purpose-built primary health centre is set to replace the existing ageing hospital and should be open around mid–2019. The health centre will have a modern emergency department, Emergency Telehealth Services, ambulance bay, multi-purpose telehealth-enabled consultation rooms and group therapy room.

Late last year the Southern Inland Health Initiative announced funding to support ageing people and people with disability in Cunderdin and Pingelly. The funds will be used to build innovative age-appropriate accommodation and they will be built, owned and managed by the shires of Pingelly and Cunderdin. The Pingelly project is in the tender phase and the Cunderdin project is in the construction phase.

For full details of all the infrastructure projects underway, visit the WA Country Health Service website, Our Building Projects section.
Cell research to stem blood disorder

A Royal Perth Hospital researcher investigating the potential of using adult stem cells to treat one of the most common blood disorders in the elderly is among seven researchers awarded fellowships in the inaugural round of Registrar Research Fellowships.

Myelodysplastic syndrome (MDS) is a disorder of the bone marrow that can progress to leukaemia in up to a quarter of cases. Dr Melita Cirillo says research has shown MDS patients can benefit from various immune therapies but none has been used routinely due to side effects including increased risk of infection. “We’re investigating whether Mesenchymal Stromal Cells (MSCs) – adult stem cells that, while not an immune therapy as such, have been found to modulate the immune system – might be a safer alternative,” Dr Cirillo said. She described MSCs as versatile cells with special properties including being universal donor cells (meaning they can be taken from anyone and given to anyone else without the need for tissue matching) that homed to sites of inflammation. MSCs being infused into participants in Dr Cirillo’s project are obtained from the bone marrow of healthy donors and culture-expanded in RPH’s cell and tissue therapies manufacturing unit, Cell and Tissue Therapies WA. Dr Cirillo said this preliminary “phase one” study was recruiting patients who had been identified as being in the early stages of MDS. If the analysis of this initial phase shows positive results, then a larger phase two study will be undertaken. While MSCs are not curable for most patients, blood transfusions and treatment for infection are the most common of the currently available therapies for patients with early MDS. Dr Cirillo said the ultimate goal of the research team was to save lives by finding a simple and effective treatment that could slow the progression of MDS and improve patients’ quality of life by limiting hospital visits and transfusions. The Department of Health-funded Registrar Research Fellowships program has been designed to enhance the research capability of the WA Health Registrar workforce by enabling these doctors-in-training to pursue research alongside their clinical duties while under the supervision of senior clinician researchers. The full list of recipients is:

- Dr Melita Cirillo, Haematology, Royal Perth Hospital
- Dr Ayla Ishak, Respiratory and Sleep Medicine, Princess Margaret Hospital
- Dr Courtney Majda, Rehabilitation, Princess Margaret Hospital
- Dr Shanela Sooben, Gastroenterology, Fiona Stanley Hospital
- Dr Graham Weaire-Buchanan, Microbiology, Sir Charles Gairdner Hospital
- Dr Cara Winnall, Cardiology, Royal Perth Hospital
- Dr Lokesh Yagnik, Respiratory, Fiona Stanley Hospital.

New study seeks the origins of asthma

Department of Health funding will help a Western Australian researcher investigate whether an individual’s likelihood of developing asthma might be determined while still in the womb. Dr Kimberley Wang, a scientist at the Telethon Kids Institute, says it has been generally accepted that asthma is triggered after a person is born, following exposure to environmental allergens. But she believes susceptibility could be determined much earlier and will use a New Independent Researcher Support (NIRIS) award to explore her belief that structural or functional abnormalities of the airway – which would be evident in-utero – play a key role in asthma susceptibility. Dr Wang acknowledges that an individual’s reaction to allergens is a strong risk factor for developing asthma but points out that many exposed individuals never go on to develop the chronic respiratory disease. “I hope to find out if an individual’s risk of developing asthma may be determined before they are born,” she says. “We already know that restricted growth in the womb, which leads to low birthweight, is associated with higher rates of asthma in later life. I hope to find out the reasons for this.” Part of Dr Wang’s project will involve examining the lung function and structure of mice of low birthweight. Dr Wang is hopeful her study will provide new insights into the cause of asthma and ultimately lead to more effective treatments. She is one of eight WA researchers to have been awarded funding in the latest round of the Department of Health-funded NIRIS program. NIRIS awards help high-performing new researchers develop independent research careers by assisting with the costs of infrastructure associated with their individual projects. Dr Wang’s NIRIS award will go towards the costs of a research assistant, laboratory consumables and computer software. Western Australia’s Chief Medical Officer, Professor Gary Geelhoed, said Dr Wang was to be congratulated on her award. He said her project had the potential to improve treatments for a condition that affected about one in nine Australians. Since the NIRIS program began in 2001, $1,335,000 has been awarded to 118 WA-based medical and health researchers.
Telehealth – changing the face of care

The number of people in country WA using telehealth for medical care has trebled in the past four years, and patients’ lives are being saved and radically transformed as a result. However, WA Country Health Service (WACHS) Chief Operating Officer Strategy and Reform Melissa Vernon said the number of people using videoconferencing consultations was still only a fraction of what it could be.

Ms Vernon said WACHS introduced WA’s first Telehealth Awareness Week in June to encourage specialists, support clinicians and patients to use telehealth to its potential.

“Each week about 800 regional and outer-metropolitan patients receive medical care using videoconferencing – either for emergency or outpatient services,” she said.

“But with telehealth consultations available for a wide range of services in many rural and remote locations, there is huge scope for greater take-up.

“Around the world, telehealth has rapidly become the normal way for health services to be delivered to remote populations, and this has improved people’s lives in many ways.

“WA is at the forefront of that charge with other countries coming here to see what we’re doing, but our vast population would benefit by using it more.”

Ms Vernon said that, with the quality and accessibility of videoconference technology improving at a rapid rate, people could in some cases use their own hand-held devices such as smartphones and tablets to have appointments at home.

This was especially the case for physically isolated metropolitan people and also for patients such as those undergoing palliative care in the regions.

“There are more than 720 telehealth videoconference units in hospitals and clinics around WA, which in 2016 saved patients from travelling 1.8 million kms,” she said.

“Telehealth is saving a lot of outpatients time and money, and is having a significant impact on reducing the stress associated with travel and time lost at work and with family.”

“Our surveys tell us that most people who use telehealth have found it as effective as a consultation in the specialist’s surgery.”

Telehealth Awareness Week included displays at hospitals and health services, country shopping centres, shire offices and Community Resource Centres, as well as the launch of videos, web-based information and a range of brochures and posters.

Fact File

- In the 2015-16, there were almost 33,500 occasions of clinical service delivered by telehealth across regional WA.
- There were more than 16,500 emergency treatments, more than 5,000 mental health appointments and almost 12,000 outpatient consultations.
- More than 30 different outpatient specialties are available to country people via telehealth, including diabetes, respiratory illness, wound and surgical follow-up, stroke and mental health.

Telehealth saves Bill money, miles – and marriage

Bill Flavel jokes that telehealth might be keeping his marriage together.

“I have advanced MS and I’m legally blind so I meet with three Perth specialists – which means a lot of drama for my wife with driving to the city,” the Narrogin resident said.

“Any time Jenny and I don’t have to go near the city is great.”

Bill ‘meets’ regularly with his neurologist at Royal Perth Hospital by telehealth from the relative comfort of nearby Narrogin Health Service.

Once, Jenny would have had to drive 200km to the city, parked and navigated them around the big hospital in Bill’s manual wheelchair – his electronic chair won’t fit in their sedan – to meet his specialist.

“With telehealth, we just go up to the local primary health service, hook-up on the screen and I can see my specialist and speak to her.

“I must have had eight telehealth video calls with my neurologist at RPH already, so we’ve saved about 3200km, buying petrol and wearing out motor cars.”

It is estimated that telehealth saved WA patients from travelling 1.8 million kms in 2006 alone.

Photo caption: Bill and Jenny Flavel in the telehealth room at Narrogin Health Service, where they ‘meet’ regularly with Bill’s neurosurgeon in Perth.

Catherine hailed with Nightingale medal

Child and Adolescent Clinical Nurse and Red Cross aid worker, Catherine Fry, is one of five Australian recipients of this year’s prestigious Florence Nightingale medal.

The medal recognises nurses who have shown exceptional courage and devotion to the sick, wounded or disabled in conflict and disaster zones.

Catherine has been working with the Red Cross for 14 years and has visited more than 10 countries on missions to help victims of conflict access health care, clean water, food, and economic support.

Hearing about her Grandfather’s experiences as a prisoner of war inspired Catherine to become a nurse and aid worker.

The aid work has given Catherine the opportunity to apply her skills and training in a challenging environment where people were often going through the worst time of their lives.

Catherine said her aid work varied with each mission.

“I can be doing anything from delivering twins in the back of a landcruser, or taking a bullet out of an eye in a mud hut in Darfur, supplying hospitals in Syria and Yemen with urgent medical supplies, to mass immunisation programs for children in remote areas where access is limited due to conflict” she said.

“I’ve also had the opportunity to train traditional birth attendants in safe practice, rehabilitate and equip health centres that have been destroyed, and assist in providing emergency care in situations such as the earthquake in Haiti.”

Catherine’s work as an immunisation nurse at Princess Margaret Hospital combined with previous experience at Sir Charles Gardiner and Fremantle hospitals motivated her to pursue a passion for aid work in rural and remote communities.

“It is really great to be acknowledged for your commitment to your profession. It’s a job I love,” Catherine said.

“Mostly I am the only expat health person in a big team but I have wonderful local staff to work with and without them I wouldn’t be able to work at all. All of them are very deserving of this award, but I am honored to have been chosen,” she said.

Catherine’s next mission will take her to Lebanon for six months. She will work on the Syrian border alongside Syrian refugees.
Nurses and Midwives Honoured

The Department of Health’s Nursing and Midwifery Office recently hosted an afternoon tea at the Fraser’s Function Centre celebrating 39 nurses and midwives who have been registered for 50 years.

One of the nurses honoured was Barbara Webster, who said she experienced much change over an amazing journey that has been transformational in more ways than one.

“My journey started at the Fremantle Hospital Preliminary Training School and the order of the day was to live in and obey the curfew, which has certainly changed since then,” she said.

“Throughout my time I have had the opportunity to combine formal study with clinical nursing and I’ve seen many improvements to diagnostic and surgical tools as technology changed.

“These changes have improved clinical outcomes – but acute observation will always be a critical skill for health professionals.”

Of those honoured on the day, 29 of the nurses/midwives attended the afternoon tea with their guests and the nurses/midwives attended the Function Centre celebrating 39 years of voluntary service.

Volunteers meet monthly to review research ethics applications involving WACHS participants including patients, their carers and staff (including their data).

The HREC aims to protect the welfare and rights of research participants and ensure research protocols comply with the ethical standards established by the National Health and Medical Research Council.

Under the dedicated leadership of Professor Aoun, the WACHS Human Research Ethics Committee has reviewed approximately 30 to 40 research ethics applications per year.

“My sincere thanks and appreciation go to Professor Aoun,” Mr Moffett said.

Child program improves family support

The Western Australian health system is changing its child health program to better meet the needs of children and their families.

From July 2017, a new program will be introduced to provide families with more flexible services and extra support, based on feedback from families and learnings from child health programs across Australia and overseas.

Child health check appointments (or Purple Book appointments) will now focus on five key ages of growing and learning in the early years – 0–14 days, eight weeks, four months, 12 months and two years – along with a health check when kids start school.

Child health nurses will also increase their focus on providing extra appointments and support to families between Purple Book appointments when needed.

The new program’s focus on providing flexible services and supporting children at risk of poorer outcomes is expected to have a positive impact on the health and development of Western Australian children.

Child health volunteers and nurses thanked

Perth Children’s Hospital (PCH) recently hosted its first two formal events as part of Princess Margaret Hospital’s (PMH) Commemorative Events Program.

Supported by Perth Children’s Hospital Foundation (PCH Foundation), the events celebrated the invaluable contributions of the PMH Ex-trainee Nurses Association and both PMH and PCH Foundation volunteers over the years.

About 300 guests were treated to an exclusive look at the new hospital’s Auditorium, Collegiate Lounge and Winter Garden at a morning tea for volunteers and an afternoon tea for ex-trainee nurses.

PMH Patron Maurine Callard spoke about the history of volunteering at the hospital, starting with the women’s Auxiliary in 1929 through to the formation of the current PMH Volunteers group in 1974.

Ex-trainee Nurses Association President Sue Burtenshaw gave a moving speech about the privilege of nursing at PMH and shared a few eye-opening stories about the hospital’s heritage.

Short videos created especially for the events were premiered, with attendees delighting in seeing familiar faces on the auditorium’s big screen. You can watch the videos and see a selection of photos from the event on the PMH website www.cahs.health.wa.gov.au

WACHS says farewell to its ethics champion

Professor Samar Aoun is stepping down as the WA Country Health Service’s (WACHS) Human Research Ethics Committee Chair after more than 20 years of voluntary service.

Since joining the small, Bunbury Health Service Ethics Committee as Chair in 1994, Professor Aoun grew this group into an influential WACHS-wide committee overseeing one of the most critical areas of WACHS business.

WACHS CEO Jeff Moffett said Professor Aoun had shown an exceptionally high standard of stewardship over her two decades at the helm.

The WACHS HREC is an integral committee with a strong commitment to rural and remote health research.

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Child health nurses embrace new program to provide more flexible services and extra support
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