

POLIO NSW

formerly Post-Polio Network (NSW)

NETWORK NEWS

Incorporating – Polio Oz News

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President's Corner

Gillian Thomas

At our 30th Annual General Meeting (AGM) held on 21st November 2018 the following members were elected to the Management Committee:

Gillian Thomas	<i>President</i>	Ella Gaffney
Susan Ellis	<i>Vice-President</i>	Chris Keun
Merle Thompson	<i>Secretary</i>	Bill McKee
Alan Cameron	<i>Treasurer</i>	Janette McKenzie
Anne Buchanan		Diana O'Reilly
Nola Buck		Shirley White

At the AGM we were sorry to farewell Charles Anderson. Charles had loyally served on the Committee for seven years, and was a great supporter of our events. Unfortunately, this year ill health caught up with Charles and he could not continue. We will miss his input at meetings. On a brighter note, we were pleased to welcome Bill McKee back onto the Committee after a seven year sabbatical. Bill was previously our Webmaster but this time around is looking for a new challenge.

The Committee will hold its annual Planning Meeting in January 2019, where we develop our activities for the year. As usual, to assist us in this process, we are asking for your input. For example, what information services do you need and in what format (e.g. printed, web based etc), what topics would you like to see covered in our Seminars, what types of information would you like on our website, and/or any other questions/ideas/feedback you have. 2019 is also the 30th year of operation of Polio NSW – how do you think we should celebrate this milestone? We would love to hear from you by 21 January.

Save the dates! The *Polio Health and Wellness Retreat* returns to NSW in 2019, from 17th to 20th October at St Josephs, Baulkham Hills (same venue as 2010 and 2014 Retreats). See past Retreats here <www.polioaustralia.org.au/retreats/> and check updates in upcoming issues of *Network News*.

The major article in this issue is Sue Ellis' report on our 2018 Mid-Year Seminar (pages 2-15). I believe this was the first Seminar I had missed in 30 years (a heavy cold kept me away) so, like other members who were unable to attend, I am very grateful to Sue for the wonderful job she has done in bringing us the content of the three excellent presentations.

Polio NSW once again participated in Polio Australia's annual *Walk With Me* fundraiser in October. So far I have raised \$4,235 and, as usual, my eventual total will be split equally between Polio Australia and Polio NSW to assist both organisations to provide their services to polio survivors. It is not too late to donate in support of the NSW campaign, just visit: <www.polioaustralia.org.au/wwm2018-nsw/>.

Finally, on behalf of the Management Committee I wish each and every one a joyous Christmas and a peaceful and healthy New Year, and hope you enjoy the holiday reading in this newsletter.

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Mid-Year Seminar Report - 27 June 2018

By Susan Ellis

Dr David Lamond, PhD – Chair of The Michael Hughes Foundation <www.mhf.life>. MHF aims to raise awareness of cardiac arrest by promoting the distribution of public access defibrillators, providing training in first aid, CPR and the use of defibrillators. David's presentation was "*Enabling Bystanders to Become First Responders*".

About the Michael Hughes Foundation: Michael Hughes was a migrant from the UK, he was a locksmith who lived in Dundas, was 2 years away from his 40th birthday, he and his wife Julie had a 9 week old baby girl Georgia, and he fell down in the shower after a sudden cardiac arrest. Despite his wife Julie's best efforts and the ambulance arriving, he passed away. The foundation was set up in his name, he was somebody who loved his family, loved his work and generally loved life.

Julie set up a fundraising evening to celebrate what would have been his 40th birthday and raised \$35,000 which enabled the foundation to buy 15 automated external defibrillators (AEDs). They then set out to work with local governments in Ryde, Parramatta and the Northern Beaches and they found that they couldn't give the AEDs away! Each of the Councils were concerned about the legal implications and they didn't want to take on the responsibility. Julie became perplexed with this and through a mutual friend who said "*I know a bloke*" who could help (David Lamond). Three years later the foundation began and 5 defibrillators went to Parramatta, 5 to the Ryde area, and 5 to the Northern Beaches.

They were able to work with the local governments after explaining the Good Samaritan section of the *Civil Liability Act 2002* – that as long as you are trying to do good there is no problem at all. Many people are concerned about stepping in when someone is having a cardiac arrest or someone has been skittled by a car; they worry that they could get blamed if anything went wrong. If you use common sense, there is no legal comeback. There is also no legal comeback if you choose to do nothing either. If you look to do your best to assist, then it is better than doing nothing at all.

Personal Liability

In NSW all Good Samaritans are protected by the *Civil Liability Act 2002 - Sect 57*

- ◆ A good Samaritan does not incur any personal civil liability in respect of any act or omission done or made by the good Samaritan in an emergency when assisting a person who is apparently injured or at risk of being injured.
- ◆ This section does not effect the vicarious liability of any other person for the acts or the omissions of the good Samaritan

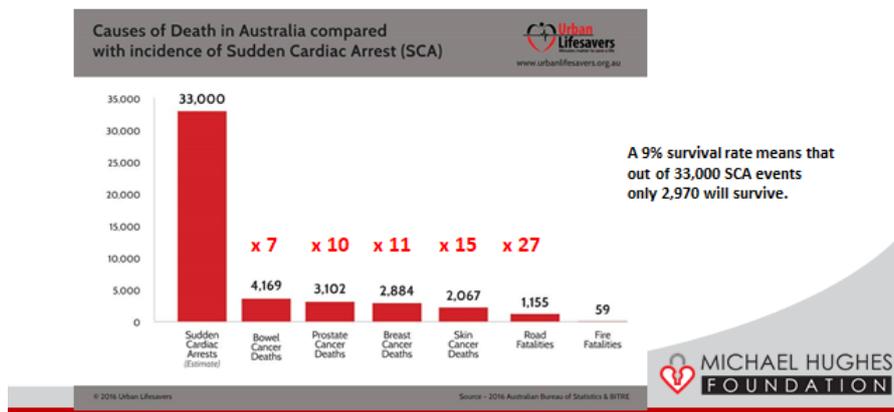


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33,000 people suffer sudden cardiac arrest in Australia per year – 30,000 don't survive. Every week 4 Australians aged under 35 die from sudden cardiac arrest. We have an Ambulance system here in NSW, and generally all around Australia, which is among the best in the world, the average response time for an ambulance to get to an emergency, is 10 minutes. The problem though is that by the time the ambulance arrives, if nobody has done anything, if no one has performed any intervention, they simply arrive very quickly to become a transport service to take the dead away. After 4 minutes brain injury begins to occur, and by 10 minutes the most likely outcome is that the person will have catastrophic brain injury and then death. So we need to find a way to overcome this problem in

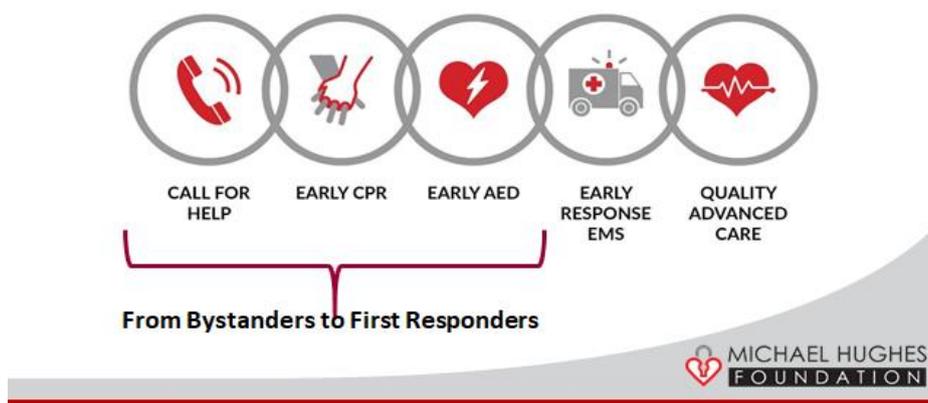
response time, the way we can do that through the Foundation is to encourage people to become first responders.

SCA in Context – the Australian Statistics



To put the 33,000 into perspective, sudden cardiac arrest has 7 times the incidence of bowel cancer and 27 times the rate of road fatalities. Then you think about the amount of money, attention and support that cancer and especially road safety get and that investment still gives 1,155 road fatalities, but remember that is 27 times fewer than the number of people who die each year from sudden cardiac arrests.

Cardiac Chain of Survival



Professor Robert Denniss, head of Cardiology at Westmead Hospital, is one of the Michael Hughes Foundation’s patrons and a very strong supporter of the Foundation. This is because he is sick of being called out in the middle of the night to perform lifesaving surgery for somebody who will be fundamentally neurologically impaired for the rest of their lives and trying to find that balance between the quantity of life and quality of life. He wants to see that when he comes to do that surgery to intervene, he finds not only a person that has been saved but who will go ahead and live a long productive life. One of the most important things about the Cardiac Chain of Survival is it involves us as bystanders who can recognise that someone is having a cardiac arrest – you can call for help, begin CPR, apply the automated external defibrillator (AED) and keep those things going until the ambulance arrives and the patient is transported to a quality advanced care unit.

What our Foundation wants is for people to think about how they could become a First Responder rather than an innocent bystanders.

Most people have the misunderstanding that a cardiac arrest is a heart attack. The difference between a cardiac arrest and a heart attack is like deciding whether to call a plumber or an electrician – a reasonably significant difference!

What is Sudden Cardiac Arrest?

Heart attack = circulation problem.

- Blood flow to the heart is blocked.
- Patient will show symptoms eg nausea, pain in neck, jaw, arm, etc.
- The patient requires immediate medical assistance
- The longer a person goes without treatment, the greater the damage.

Sudden cardiac arrest = electrical problem.

- Heart quivers or fibrillates – rather than pumping blood
- Blood is not being pumped to vital organs
- Patient will be unresponsive, have no pulse and not breathing
- Death occurs within minutes if the victim does not receive treatment.



Heart attack is a circulation problem, a plumbing problem. If David was looking at himself on balance as to whether he would have a cardiac arrest or a heart attack then he is a pretty good candidate for a heart attack. He has diabetes type 2, is overweight, he enjoys the benefits of medicinal quantities of red wine; he is the one who is going to have the plaque building up in the arteries around his heart and that is why this is called a plumbing problem. It is the blockages of those arteries that feed the life giving oxygen to the muscles in the heart that get clogged up. That is when you hear about people having stents put in to expand the artery, or bypass surgery when the blood isn't getting through these 'pipes' anymore, so they put in a new artery to bypass the blocked one.

If the blood flow to the heart is blocked you get a pain in the chest, it might radiate down the chest or the left arm, and you may also get pain in your neck or in your jaw – you are having a heart attack. Certainly the person requires immediate assistance but in terms of urgency and emergency, the urgency is not as much as it is with a cardiac arrest.

A cardiac arrest is an electrical problem. You may have seen a TV show where they call a Code Blue, when they get a crash trolley, they get a defibrillator and pulse signals on the screen; that is when we are looking at the problem which is in the electrics. The heart defibrillates (quivers) rather than pumping the blood. The sound of atrial and ventricle pumping is two sounds close together (lub dub, lub dub) – the sound of pumping in time. They can only hear that if the heart muscle is sound and getting the blood, also when the septum in the middle of the heart is sending the electrical charge to make those muscles contract, simulating pumping. During a cardiac arrest the person will not be conscious or responsive, there is no blood getting to the organs or to the brain, they won't be breathing and there won't be any pulse. Death will occur within minutes if no treatment is received, rather than hours as in the case of a heart attack.

Someone who is having a circulation problem, a heart attack, will have all the pain from the heart contracting and damage will certainly be done to the heart; they will be sweaty, complaining of chest pain, but you will still be able to feel a pulse. This is the difference between cardiac arrest and a heart attack, one is an electrical problem and one is a plumbing problem.

Early CPR is the key to Sudden Cardiac Arrest (SCA) survival – it is so important. A person needs to have a shockable rhythm before a defibrillator can be applied. And this is why is so important to get some kind of rhythm going using CPR.

The new AED machines (Automated External Defibrillators) – defibrillation for dummies – will tell you what to do and how to do it. It will also tell you whether the person needs to be defibrillated or not because once you attach the pads to the chest it will do its own diagnostics. It will say '*I have a shockable rhythm, stand clear, don't touch*', shock is employed and hopefully we get a normal rhythm – lub dub, lub dub. However, if that

rhythm is already there then there is no need to shock. OR you'll get the instruction, 'no pulse, continue with CPR'. Continue with CPR for a further 2 minutes, come back for a diagnostic test again, 'you have a shockable rhythm now, stand clear', shock. The AED will tell you how to attach the pads to the chest. If there is already a pulse then no shock is needed. If there is no pulse then a shock is needed.

DRS (doctors) ABCD – is the acronym used for how to respond to a cardiac arrest:

D **Danger**
Check for danger (e.g. electrical wires, water) to the patient and bystanders.

R **Response**
Check for Response by talk and touch.

S **Send**
If unconscious, need for help by calling Triple Zero (000).

A **Airway**
Open Airway and ensure it is clear.
Tilt head, lift patient's chin and clear the airway.

B **Breathing**
Check Breathing.
If patient is not breathing or breathing is not normal, commence CPR.

C **CPR (30:2)**
Start CPR.
Use 30 Chest Compressions followed by 2 rescue breaths.
If unable or unable to perform rescue breaths continue chest compressions.
The Breathing: give 2 initial rescue breaths before starting compressions.
Ensure adequate forehead head tilt when giving rescue breaths.
Compressions should be at a rate of 100-120 per minute in the centre of the chest and be 1/3 of the patient's chest depth.
The hands are not to lift when administering breaths. Use 2 fingers to compress chest.

D **Defibrillation**
Attach an Automated External Defibrillator (AED) as soon as it is available and follow its prompts.

Continue CPR until:

- The patient responds or begins breathing normally.
- It is impossible to continue (e.g. exhaustion).
- A health care professional arrives and takes over CPR.
- A health care professional directs that CPR be ceased.

To get involved and learn to save a life, enrol at sls.com.au or call 1300 766 257

The information on this card is a summary for first aid training. For full details, refer to the manual that accompanies this card.

Australian for life

CPR Chart	
Cardio Pulmonary Resuscitation	
IN AN EMERGENCY REMEMBER YOUR DRSABCD	
Dangers?	Check for danger (e.g. electrical wires, water) to the patient.
Responsive?	Is the patient responsive and not breathing normally?
SEND FOR HELP!	<ul style="list-style-type: none"> Ring for assistance. Use someone to call Triple Zero (000) immediately. Use an AED/AED2.
Open Airway	<ul style="list-style-type: none"> Tilting the head back and lifting the chin for the airway. Remove any object from the mouth. Use a jaw-thrust.
Normal Breathing?	<ul style="list-style-type: none"> Look, listen and feel for breathing. Normal breathing is present (rate of 10-20 breaths per minute). Normal breathing is absent, commence CPR (30 compressions to 2 breaths) at 100-120 compressions per minute.
Start CPR	<p>DRSABCD:</p> <ul style="list-style-type: none"> Place hand in the centre of the chest. Compress hard and fast (100-120 compressions per minute). Continue with 30 compressions to 2 breaths. Continue with 30 compressions to 2 breaths. <p>REMARKS:</p> <ul style="list-style-type: none"> Position 2 fingers at the base of the patient's nose. Open mouth approximately one third the depth of the chest. Continue with 30 compressions to 2 breaths.
Attach Defibrillator	Attach Automated External Defibrillator (AED), as soon as available. Follow the prompts.

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CPR Steps

1. Make sure there is no **danger** to you or the patient i.e. no live wires, water etc.
2. Is the person responsive (i.e. cardiac arrest), no **response** to stimulation, no breathing, no pulse.
3. RING 000 or tell someone to ring 000.
4. Check **airway**.
5. Check **breathing**.
6. Tilt head back. Start **CPR**.
7. Defibrillation if indicated.

CPR

- ◆ Cardio Pulmonary Resuscitation (CPR) is proven to make a difference, a **real difference!**
- ◆ Compressions on the lower half of the sternum
- ◆ CPR recommended **30 compressions to 2 breaths**
- ◆ At a rate of **100-120 per minute**
- ◆ Compress **1/3** of the depth of the chest (Approx. 4-5 cm)
- ◆ CPR is very tiring if possible rotate rescuer every **2 minutes**

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After calling 000, you will find the operators will be very efficient and helpful but one issue for them is locating where you are calling from. If you have a Smartphone, they can pick up your signal. There are free apps for your phone e.g. Emergency+ that will locate exactly where you are within seconds and relay this to the operator. The app can be used to call any emergency service e.g. police, SES, ambulance service.

CPR early is vital in surviving a sudden cardiac arrest, the first 4 minutes are critical; CPR makes a huge difference to the outcome. The survival rate for SCA is about 10% in

Australia. In Seattle the survival rate is 63%, there they promote completing a CPR course for all driver's licence holders.

The Adams Family beat is the rate that you should use for compressions or "Staying Alive" by the Bee Gees or "Another One Bites the Dust"; 4x4 time, 100-120 beats per minute. A normal pulse rate is 70-80, for some athletes 60 or even 40. The aim is to get that blood pumping around and also up to the brain.

Defibrillation

- ◆ Dry patient's body and/or move patient if any water is present
- ◆ Remove clothing on patient's torso including bra and any jewellery from chest area
- ◆ If male patient has chest hair, quickly shave section where pads are to be placed (for best contact of defibrillation pad)
- ◆ Correctly position defibrillation pads
- ◆ Follow AED voice prompts
- ◆ Do NOT touch the patient whilst delivering shock to patient

The use of an AED should NOT be restricted to trained personnel!



The AED will give visual prompts and audio prompts, it will tell you to push harder, and when ready to shock it will tell you to stand clear. It will tell you when normal rhythm has been restored. It won't let you shock the person unless they need to be shocked.

Maintenance: The batteries last 3 years, some 2-5 and some 7 years so check use by dates, battery levels etc. Most defibrillators self-check, displaying a green light if operable and ready to use or a RED light - not able to use.

Maintaining your AED

- ◆ Develop a maintenance program specific for your organisation.
- ◆ The AED automatically completes a regular self test
- ◆ The AED alerts you to ANY faults
- ◆ The Michael Hughes Foundation periodically audits the performance and condition of your AED and its components with each club
- ◆ Notify the MHF if you have any operational concerns with your AED



Cost of a defibrillator— standard community defibrillator would be \$2,500. Someone needs to be responsible for the maintenance of them. There is regulation for fire extinguishers but there is no regulation of defibrillators.

- Do an accredited first aid course!
- Don't be afraid to have a go!
- Call the Ambulance – ambulance personnel will support you
- Take a deep breath.....
- Any effort is better than no effort!
- You won't save everybody but you will dramatically increase their chance of surviving!

Associate Professor John Dearin – Rural doctor and VMO Lithgow Hospital as well as Senior Lecturer at University of Notre Dame Australia School of Medicine. Specialty Interests: General Internal Medicine and Geriatrics.

Our second presentation was “*Healthy Ageing: how to make the most of your senior years*”.

Professor Dearin spoke of his previous experience of post-polio syndrome when he ran a rehabilitation and geriatrics unit at Tamworth Base Hospital in the 1980’s. He also remembers as a child in the 1950s that his parents were terrified of their children contracting polio as some of Professor Dearin’s school friends had done.

According to the Bureau of Statistics around the world, once you turn 65 you are classified as ‘old’ and this includes him! He presented statistics relating to the ageing of the Australian population e.g. 15% of all Australians (3.7 million) were aged 65 and over in 2016 (in 1956 it was only 5% of the population); this is expected to grow to 22% (8.7 million) by 2056 and basically the reason is that we are all living longer.

Only about 5% of ‘old’ Australians end up in a nursing home and 76% own their own home. The ageing of the population creates both pressures and opportunities for Australia’s health and welfare sectors. Life expectancy has increased over the last 110 years which could be put down to the advent of refrigeration, vaccination, public health and probably better control of blood pressure.

Today in Australia the life expectancy of a male is now 84.5 years, and a female 87.3 years. There are only six other countries worldwide where both men and women have a life expectancy of over 80 years: Japan, Italy, Switzerland, Iceland, Israel and Sweden. So how are you going to spend those extra years?

Healthy Ageing:

- The health of the increasing number of older Australians is an important economic challenge facing Australia. It is also an opportunity, as extending a lifetime of good health enables older Australians to continue to contribute socially, culturally and economically to the wider community.
- A range of factors influence older people's ability to remain healthy as they age; these include a number of behavioural and biomedical risk factors as well as ongoing social and mental wellbeing.

Health and Functioning:

As the number of older people in Australia continues to grow, optimising their health and wellbeing is an increasingly important economic and medical challenge.

To best respond to the increased demands of this larger aged population, the health system needs to understand the most common health conditions that older Australians might experience. **7 in 10** older Australians considered they had good, very good or excellent health. **2 in 10** Australians aged 65 and over experienced a disability in the form of a severe or profound core activity limitation. This of course increases as we get older and this taps into the post-polio syndrome. **15%** of all deaths of Australians aged 65 and over were caused by coronary heart disease. The most common causes of death are coronary disease, cancer, dementia and being hit by a bus (accidents)!!

Many serious health issues, including some chronic diseases e.g. cardiovascular disease, chronic kidney disease, certain types of cancer, type 2 diabetes, influenza and high blood pressure, all relate to lifestyle factors which are **modifiable**. These factors include the lack of physical exercise, poor nutrition, obesity, smoking, excessive alcohol consumption, non-vaccination and psychological distress. All of these issues are important to how we age.

The Five Risk Factors: *Tobacco use* doubles your risk factors (responsible for 22% of all cancer deaths per year), *high body mass* (70% of older Australians are overweight i.e. BMI >25), *alcohol use*, *physical inactivity*, *high blood pressure*.

BMI = $\frac{\text{weight kg}}{\text{height m}^2}$ OR as Professor Dearnin prefers: the $\frac{\text{haunch}}{\text{paunch}}$ Ratio

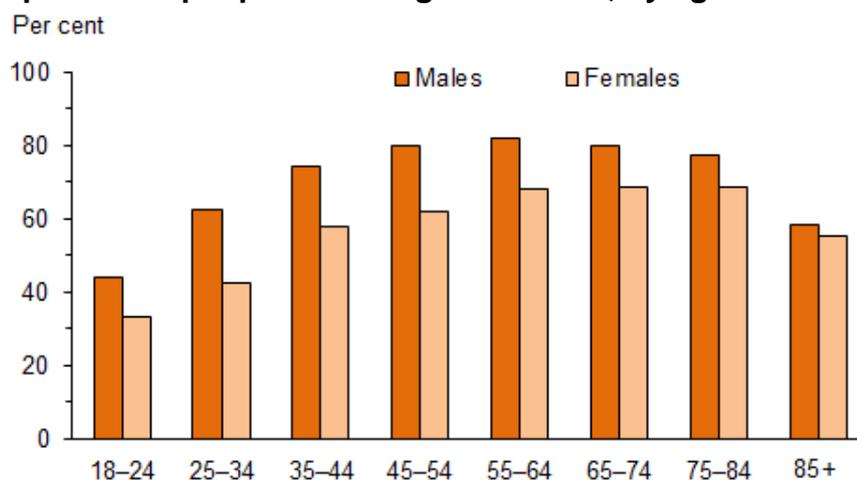
Recommendations:

National guidelines suggest that older Australians should aim for 30 minutes of moderate **exercise** on most days of the week (e.g. brisk walking, sports, gardening or swimming). Being active helps maintain a healthy body mass, improves both physical and mental wellbeing by reducing the risk factors for cardiovascular disease, diabetes, anxiety, depression and musculoskeletal problems, whilst enhancing social and community connectedness by providing opportunities for social engagement. Living the life of a hermit is not good for anybody; you need to mix with others. When you exercise, the body produces ‘happy’ hormones, called endorphins, which make you happy.

Nutrition: A rounded diet which includes 2 servings of fruit and 5 of vegetables every day protects against conditions such as heart disease, type 2 diabetes, and eye diseases such as cataracts and macular degeneration. Green leafy vegetables are good for your heart and good for your brain.

Obesity: Obesity is a key health issue for older Australians and can increase the risk of developing heart disease, type 2 diabetes and certain cancers, among other things. 80% of men and 69% of women are overweight or obese, this trend declines once 85 and over.

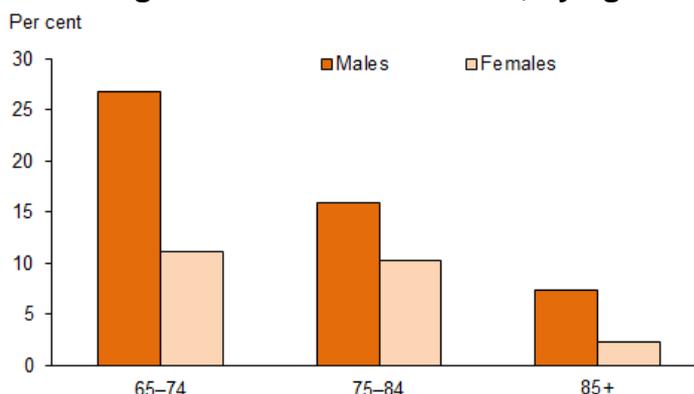
Proportion of people overweight or obese, by age and sex, 2014-15



Smoking: Rates of smoking have drastically decreased in Australia since the late 1980s; we are leading the world in this and may be due to an improved awareness of the negative health effects of tobacco, and a range of control measures aimed at reducing smoking rates. Smoking is the leading risk factor for a number of diseases and conditions, including coronary heart disease and lung disease. As well, smoking is estimated to be responsible for 22% of all cancer deaths per year; this includes not only lung cancer but kidney, bladder and probably pancreatic cancer. Older Australians tend to have much lower rates of smoking than younger cohorts – only 7% of people aged 65 and over are current smokers, compared with 18% aged 18-64. As well, 44% of people aged 65 and over reported being previous smokers. The main reason that people aged 70 and over reported for quitting was health (56%).

Alcohol Consumption: Alcohol plays a prominent role in society; most Australians drink at light to moderate levels. However, drinking excessive amounts of alcohol is a health risk, and can contribute to long-term health issues such as liver disease, some cancers, and brain damage and dementia. The NHMRC recommends no more than 2 standard drinks daily to reduce one’s lifetime risk, and no more than 4 drinks in one event to reduce single-occasion risk. Of the 70% of older Australians who did consume alcohol in the last 12 months, more than three-quarters (80%) did not exceed the recommended guidelines, while 16% drank above the recommended guidelines for lifetime risk i.e. the accumulated risk from drinking too much and too often over a lifetime. Men were more likely than women to drink excessively.

Proportion of people aged 65 and over who drank above The 2009 NHMRC guidelines of lifetime risk, by age and sex, 2014-15



Vaccinations: One of the most effective health interventions against preventable health issues is vaccination. Influenza and pneumonia can seriously affect the health of old Australians, vaccinations are free for people aged 65 and over to ensure a high coverage. The influenza vaccine is available annually; the pneumonia vaccine is administered once. In 2009, approximately half (51%) of older people were vaccinated against influenza and pneumonia – this needs improving.

Psychological Distress: Chronic stress can potentially lead to anxiety and depression and to physical health issues such as high blood pressure. So it is important to try and maintain equilibrium. 52% of 65+ age group said they were stressed in 2014-15. Stress management strategies such as relaxation, physical activity, time management and social connections can help lower stress levels and reduce the negative impact experienced as a result of chronic stress.

Staying Mentally Active: Staying mentally active throughout life can help maintain cognitive functioning, mental wellbeing, and promote independence into older age. In 2011, more than 14,000 people aged 65 and over were enrolled in a full-time or part-time educational course. Around 5% of people aged 65 and over had participated in an education or training group to help gain new skills for further engagement. In 2012, around 43% of men and 61% of women aged 65 and over reported reading books 3 or more times a week. Intellectual (cognitive) activities such as reading, writing and doing puzzles help participants to keep mentally stimulated. A group of 450 in a study in Queensland learnt a new language or a musical instrument and this proved to enhance their mental health. It is good for you, enjoyable and might stave off the dementia that we all fear.

Mental and Social Wellbeing: Healthy ageing involves more than just promoting good physical health. Social and mental wellbeing are also important determinants for a high-quality life into older age. According to the National Health Survey, older Australians typically have low levels of psychological distress (73%), which involves both measures of anxiety and depression in individuals.

Social Connectedness: Social connectedness can affect mental and physical health. A recent meta-analytic review found that the influence of social relationships on mortality is comparable with well-established risk factors, such as smoking and excessive alcohol consumption. The review included 148 studies, with data from more than 300,000 participants with an average age of 63.9. The analysis found that people with strong social relationships demonstrated a 50% increase in survival compared with those with weaker social relationships. Older Australians tend to have regular social engagement. In 2014, 19% of people aged 65 and over had daily contact with people outside their household, and 63% had contact at least once a week. When looking for support, 92% of Australians aged 65 and over believe they have someone outside the household in whom they can confide. Social engagement through community groups, sports, societies and volunteering can also help to strengthen and expand these social networks. So social connectivity is important and how to achieve social engagement could be through community groups, sports, societies, and volunteering; all of these help to strengthen and expand social networks.

Biomedical Risk Factors: Biomedical risk factors are bodily states that contribute to the development of chronic disease such as cardiovascular disease, type 2 diabetes, and chronic kidney disease. These states can be caused by a range of factors including:

- genetic
- socio-economic
- psychological
- behavioural
- or a combination of these

Biomedical risk factors may also be influenced by behavioural risk factors – for example, physical inactivity and poor diet can adversely affect blood pressure and blood cholesterol. Behavioural and biomedical risk factors tend to increase each other's effects when they occur together in an individual. Overall, older Australians experience a higher prevalence of biomedical risk factors than younger Australians, and these generally increase with age.

This snapshot focuses on 3 biomedical risk factors that have direct and specific risks for health. These risk factors may be able to be modified by undertaking sufficient physical activity and eating a healthy diet.

- 1. High blood pressure:** >140/90mmHg. When high blood pressure is controlled by medication, the risk of disease is reduced, although not to the level seen in unaffected people. Get you blood pressure checked at least yearly and have your doctor also take it whilst you are standing as we can feel a bit wobbly when we get up in the mornings and if your blood pressure is too low is can cause you to fall and break bones!
- 2. Abnormal blood lipids (dyslipidaemia):** Dyslipidaemia – abnormal level of blood lipids (e.g. cholesterol, triglycerides) is a risk factor for chronic disease such as coronary heart disease and for some types of stroke and has been linked to atherosclerotic damage to arteries and heart disease.
- 3. Impaired glucose regulation:** Impaired glucose regulation is a characteristic of pre-diabetes, a condition in which blood glucose levels are higher than normal, although not high enough to be diagnosed with type 2 diabetes. There are two measures of impaired glucose regulation – impaired glucose tolerance (IGT) and impaired fasting glucose (IFG). Both IGT and IFG are pre-diabetic states associated with insulin resistance – where cells fail to respond normally to insulin – which leads to high levels of blood sugar. Both IGT and IFG are risk factors for type 2 diabetes, and are associated with a greater risk of heart disease.

Advice: Get your Blood Pressure, cholesterol and blood glucose levels checked annually. Maybe not once you are 85 or over, after all **“85 year olds and older are biomechanically elite!”**

Professor Dearn also suggested that we get our Vitamin D levels checked – not only is Vitamin D good for your bones but it also good for muscle strength.

7 Habits of People Who Age Well:

Exercise and diet as well as attitude can be as important as genetics when it comes to growing old gracefully.

**“Old age,” as Bette Davis once said, “is no place for sissies”
Or as my wife says “She’s not taking it lying down”**

But that doesn’t mean you need to chicken out. Sure, growing older affects nearly every part of your body – including your hair, skin, heart, muscles, and more – but ageing may well be as simple as adopting these (mostly) easy everyday habits:-

- Maintain a positive attitude (set goals to be achieved)
- Watch what you eat
- And how much you eat
- Exercise regularly
- Stay social
- Protect your skin from the sun.
- Get plenty of sleep

Professor Dearn suggested a book by Mr Ian Litchfield OAM called *“Secret to Longevity”*. He then played a video of a 92-year-old friend of his who had been a sheep grazer all his working life; he is an intellectual and very articulate. Dr Dearn posed a question to him: *“So what about this ageing thing?”* Here are the points he made in his reply:-

- Firstly, it is essential that you rise early in the morning.
- Try and be active as much as possible, don’t sit on your backside.
- Diet is very important, eat wholesome food, don’t eat junk food.
- Eat a handful of a variety of nuts every day.
- Have a lot of interests in things and keep your mind active.
- Seek friends, you have to communicate with people, don’t isolate yourself.
- Drink a glass of red wine every day, it is very good for you.
- Companionship, you need to have someone that you can go out with and enjoy life with otherwise you don’t go out – go to a concert, the opera.
- Finally, you’ve got to listen to beautiful music which is very good for your overall well-being, it’s good for your mind.

He also gave Dr Dearn two quotes that he has carried with him throughout his life. The first is from a French poet and dramatist, Victor Hugo – *“The supreme happiness in life is the conviction that we are loved”* and for the second (on the value of music) he quoted Martin Luther, the great reformation instigator – *“Next to the word of God the noble art of music is the greatest treasure in the world”*.



Paul Cavendish, is an Exercise Physiologist who has worked with neurological conditions and is the Clinical Educator for Polio Australia. His presentation – *“Summary of the Late Effects of Polio Clinical Practice Workshops”* – included a review of the polio virus and the capacity of the human body to recover, the role of assistive technology, management of fatigue and pain, the role of exercise and activity, respiratory and sleep function, speech and swallowing and orthopaedic management.

Polio Australia's aim for the LEOp Clinical Practice Workshops is to deliver training to as many health professionals across all states of Australia as possible. At each workshop we have a polio survivor who gives an account of their experience and is also there to answer any questions from the health professionals.

Polio Australia also plans to develop online learning modules for health and medical professions as well as for survivors. We are also working at universities providing information and resources as well as with the Aged Care industry, including those who work within the industry such as case managers of home care. We also want to develop partnerships with health organisations and other neurological organisations and to increase awareness, support and advocacy for polio survivors.

The current workshops have been running since the end of October 2017 and we have trained 420 health professionals across Australia. We now have a Health Professionals Register on the Polio Australia and Polio Health websites where you can log in to find, by location, various health professionals.

Polio is nearly gone but not forgotten. With the efforts of Rotary and the Gates Foundation we now see very few new polio cases. There is still no cure for the polio virus or its after-effects. The inflammatory response from the virus (acute and chronic) may still mean that the polio virus will remain relevant for many years to come. Research is being done by the Swedish and Italians on inflammation and PPS. There have recently been clinical trials with Stage II Brain Cancer using the polio virus.

The stages of the polio virus: the early infectious stage when denervation of muscles occurs and then the recovery stage of mobilisation and activity with reinnervation of muscles. Hydrotherapy is something that really took off during the recovery period as a way of restoring function and it is still a way of maintaining your joints and muscles focusing on mobility rather than strength. Recovery plateaus for a period of 20+ years before there can be a sudden decline with the Late Effects of Polio (LEoP).

From a muscle point of view we often refer to our polio limb or non-polio limb but we should recognise that polio generally spread throughout the whole body and we can't be sure what is affected and what isn't.

The determination of a polio survivor and their attention to detail comes through professionally as in many well-known people from all walks of life such as Mia Farrow, Kerry Packer, Kim Beasley, Neil Young, President Franklin Roosevelt, John Laws and Joni Mitchell.

Psychosocial factors affecting polio survivors include:

- incredibly resourceful and independent,
- pain and fatigue a constant challenge,
- capacity to find new methods or strategies can become difficult,
- seeking assistance is challenging (finding knowledgeable professionals),
- facing rehabilitation again

Dealing with all of these issues influenced us in becoming determined and independent; some call "determination" in polio survivors "stubbornness".

From a health perspective this determination along with being extremely resourceful and independent makes us prone to pushing ourselves which can lead to more pain and

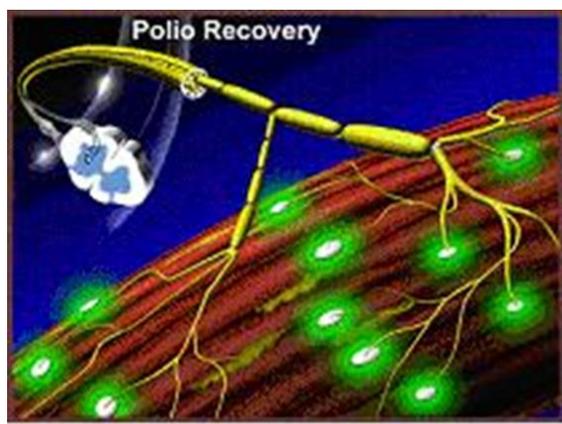
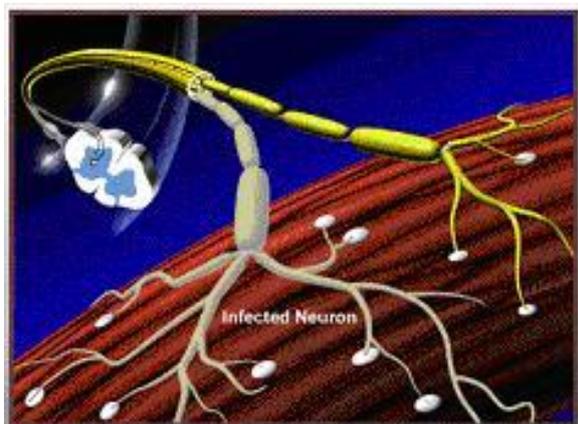
fatigue. The capacity to find new methods or strategies can lead to a frustration and difficulty when seeking assistance. Then there is the challenge of finding professionals who have the knowledge and skill to deal with PPS. The psychological effect when we are faced with dealing with deterioration of function may bring up all sorts of past issues. This might require you to seek some assistance and help (counselling) to assist you to work through these issues, working through acceptance and understanding of what is happening.

Aids and Equipment: It is important to plan ahead to future-proof your needs so you can maintain your independence both at home and in the car. Advice from an occupational therapist should be sought on the right fit for mobility aids such as wheelchairs, scooters, walkers, including the height and weight of the aids. Assessments are available through My Aged Care.

Orthotics: Discuss your current situation and history with your orthotist and include your activity levels, environment (hills, paths, challenges), how you use your orthotics or how you previously used them, what was successful and what failed. A comprehensive assessment is essential including a gait analysis, range of motion testing, muscle strength, and endurance testing for both limbs. Appropriate bracing and the stabilising of joints will help improve energy levels, reduce joint and muscular pain, preserve existing muscle strength and joint health of less affected limbs, and maintain current activity levels. Orthotics also reduce the risk of falls.

Fatigue Management: Various strategies such as pacing, planning, prioritising and positioning can help manage fatigue. Keeping an activity diary to identify those activities that cause you the most fatigue and pain is recommended as the best way of managing fatigue as well as pain. This will help you decide what changes you need to make to continue a particular activity more easily. Occupational Therapists can advise on strategies to help with fatigue, as well as offer solutions to any difficult tasks you may have in your activities of daily living, to make life easier. Pacing is looking at what you do and making adjustments to how you do an activity. Rather than pushing yourself, spread an activity out (pace yourself) rather than doing the activity all in one go, causing fatigue and pain. Make sure you get the appropriate amount of sleep.

Exercise and LEOp: Paul quoted studies from “*The Polio Paradox*” by Richard L Bruno regarding exercise and muscle strength. Any muscle activity is exercise, hydrotherapy, walking, or even household chores. We need to be careful with the amount of effort we put on our remaining muscles. Muscles decrease in strength by 1-2% per year after 25-50 years post-infection i.e. after the period of stability.



The first stage of the polio infection is when denervation occurs; this is followed by reinnervation of motor units during the recovery period. With age there is a reduced capacity to maintain reinnervation of large motor units. It is important that we need to *conserve to preserve*.

If we keep pushing we could lose even more muscle strength. A generalised exercise example does not exist for polio survivors i.e. 30 minutes daily for the generally healthy population. For polio survivors we must have **individualised** exercises which relate to our level of fitness and strength.

It has been found that exercise intensity at levels that normally result in fitness adaptation did not improve muscle strength or fitness for polio survivors. Individualised exercise must be performed without monitoring the heart rate, exercise with moderate intensity. “*B-Fit! Guidelines*” are being developed by a research group at AMC (Netherlands).

Take Home Message: An appropriate exercise prescription can maintain or improve strength. Work at a comfortable intensity i.e. 2-4/10 (fatigue levels are your best guide) with low repetitions (8), and short bursts of activity with frequent rest stops is recommended. Activity (any) should complement your day.

Manual muscle testing to measure muscle strength is an essential tool when developing a suitable exercise program as to whether exercise can successfully strengthen a muscle or whether a ‘drop out’ of strength will occur. Muscle strength is rated out of 5, any muscles



rated 3 or less must be treated cautiously and not given strengthening exercises, this in fact can cause more damage and decrease strength further. The aim here would be just to maintain muscle strength at the current level. The muscle strength chart can be used as a benchmark of strength for future assessments. It must be noted that, when performing the manual muscle strength assessment, it is necessary to do the movements 3 times to get a true reading, a single movement can be done easily whereas 3 times will replicate the muscle fatigue that occurs in polio muscles.

Bulbar features of LEOp:

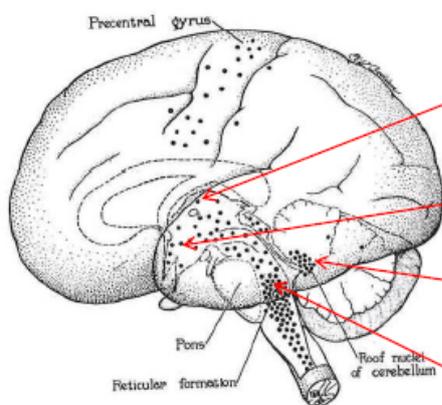


FIG. 1. Bodian's schematic view of the human brain which includes the upper portion of the spinal cord. The solid dots show the general distribution of lesions of poliomyelitis (from Bodian, n. 17). Reproduced by permission of the National Foundation for Infantile Paralysis.

Thalamus and basal ganglia:
adjustments in muscles tone and body position

Hypothalamus: temperature, thirst, heartbeat, blood pressure

Cerebellum: balance

Brainstem and reticular formation:
Breathing, sleep/awake, heartbeat, blood pressure, muscles of neck and face

Respiratory Assessment and Referral: It is important to note that respiratory issues should be considered as neuromuscular insufficiency (weak muscles) not lung disease. Is it bulbar innervated issues or is it breathing muscle issues e.g. abdominals? Breathing capacity tests should be done in a seated position but also lying down to get a true reading of breathing muscle strength. Again testing should be done 3 times to gauge fatigue and strength.

Sleep Studies: Symptoms of sleep apnoea – morning headaches, fatigue, constant tired feeling, decreased appetite, depression, impaired concentration. Current machines and masks have greatly improved and are well worth revisiting, it can make a huge difference to our general health and wellbeing.

Speech Pathology and Therapy: More polio people are experiencing difficulties with speech production, vocal fatigue, swallowing and constricting/full sensation in the throat. A speech therapist can recommend techniques for swallowing and advise on types of food to make swallowing easier to avoid choking.

Orthopaedic Management: This is a growing area with wear and tear occurring on our joints over a long period of time. Functional outcomes for knee replacements are similar to non-polio survivors – the strength of quads is an important factor. The revision rates are higher for polio survivors. Functional outcomes and long-term follow-up for hip replacements in both unaffected and affected hips is similar to the osteoarthritic population. Carpal tunnel release is common (22% of polio survivors). **IMPORTANT: Anaesthetic considerations are vital for all surgical interventions.**

Where To From Here?

Health Professionals Register (to find experienced professionals in your area)
<www.poliohealth.org.au/post-polio-health-professionals/>

Polio Health website (for information on topics relating to post-polio)
<www.poliohealth.org.au/>

Development of networks



Reprinted from Amigo Mobility International "*Friendly Wheels*" – Polio History www.myamigo.com

Early version of iron lung on display at Australian museum



Both Iron Lung

A museum in Glen Innes, Australia, has an early version of an iron lung on display. In the late 1930s, Australian engineers Edward and James Both designed a "breathing machine" for use in the Glen Innes Hospital. An earlier "American Drinker iron lung" had been very heavy and enormously expensive, so the Both brothers developed one that was made mainly of plywood. Their iron lung was transportable. It was in service at the hospital until 1956. It is now on display at the Land of the Beardies History House Museum and Research Centre.



The surgeon who runs India's last polio ward

Working on an 18-hour shift daily, Dr Mathew Varghese has devoted his entire career to restoring mobility and dignity to those left crippled by the disease.



Dr Mathew Varghese (right) talks to a patient in the Artificial Limb Centre at St Stephen's Hospital in Delhi

Polio victims are a common sight on the streets of Indian cities. There was a time, less than a decade ago, when eradicating polio from India — home to nearly half of the world's polio cases — seemed impossible. However, after years of relentless work by dedicated community health workers and vaccinators who went from door to door, village to village, giving every child those precious two drops of the vaccine, the tide turned and the country saw its last case of polio in 2011.

Still continuing the good fight, Dr Mathew Varghese is a true legend of the war against polio. An orthopaedic surgeon, he runs India's only polio hospital ward that offers free corrective surgery for people with deformities associated with the disease.

Pillar of community: In the 1990s, when the viral epidemic crippled more than 50,000 children each year in India, Dr Varghese rolled up his sleeves and waded into uncharted waters at St Stephen's Hospital in Delhi, and has been there since. *"I stayed on because it is easy for patients to track me. They keep coming back for braces, and other minor issues,"* he says. *"In fact, a few of the patients who got married and have college-going children still come to me for health advice like a family physician."*

"I wish there's no need for my ward. But I know there are so many out there, with paralysis, who will keep coming to me as long as I am alive."

Getting all the way to zero cases, to track down more than 170 million children behind every door of every dwelling in this vast nation has been a long, hard and arduous journey. Widespread poverty, dense population, poor sanitation, high levels of migration and a weak public health system made the task that much more difficult.

Reminiscing on his early years in hospital, the surgeon who has transformed thousands of lives, says, *"in the beginning, the ward was busy with rapid turnover of patients and the combination of paralysis varied from patient to patient"*.

"I was stimulated to study more, think more and understand the nuances of managing paralytic patients," adds Dr Varghese. *"But I never understood the social dimension of the disease. I began to understand that aspect — of what it means to be paralysed and poor — only when I started going to an urban slum to do voluntary work."*

Link between poverty and polio: To Dr Varghese, poverty and polio are inextricably linked. Those living in extreme poverty are far more likely to contract polio, and being paralysed by polio can prevent a child from rising out of poverty.

Seen as a pioneer by the polio community, Dr Varghese works on an 18-hour schedule daily. At work, he doesn't wear a watch, studiously avoids almost all phone calls, and never accepts an incoming call from someone unknown. *"I don't like the concept of working to a clock time, and avoid distraction,"* he says. *"I work to complete a task and see or operate all the cases I need to."*

Many patients, including some of the poorest in the country, who are paralysed in their lower limbs hear about the ward and travel to Delhi in the hope of correcting bent legs and feet. No one is turned away.

"We never postpone cases for want of time. We never say 'no' to a patient," Dr Varghese says. *"I'm not sure how many patients I have operated on but easily several thousands,"* he adds.

The polio ward at St Stephen's Hospital was started by surgeon Dr Balu Sankaran in 1987, who "convinced" then hospital director Dr Lucy Oommen to start a free ward for poor patients. *"In the 50s, Dr Sankaran was trained in the US with the best surgeons in the world when polio was common there. I was lucky to work with him, and picked up several surgical tips and tricks from him,"* Dr Varghese says.

Lower numbers: Over the years, the number of surgeries has dwindled. *"Earlier, the numbers were higher — at about 600 patients a year. But now a lesser number of patients occupy the beds for a longer time."*

These days, he mostly treats people in their early 20s, who contracted polio in their infancy. *"Treating deformities of older patients is difficult and takes a longer time. The surgery is not technically demanding but the decision-making can be tricky."*

Most are equipped with a pair of calipers and have to undergo at least three operations to straighten each hip and knee to be able to walk.

"Restoring the dignity of human existence, of seeing a non-walking patient stand, and walk, is immensely satisfying." That work and the joy it brings, he says, *"no amount of money can ever buy."*

To Dr Varghese, who has devoted his entire career to restoring mobility and dignity to those left crippled by one of the world's oldest diseases, reconstructive surgery is "life changing". *"It removes the social stigma of being disabled. In fact, many young women have found their life partners after surgery."*

Simply put, he assists with therapy, surgery and more. Since it takes patients a couple of months of multiple surgeries and rehabilitation at the hospital to be able to walk, Dr Varghese says he interacts "very closely" with patients. *"I listen to their non-medical problems such as education, jobs and marriage!"*

Lack of funds: *"Often times, I request some Rotary International members and some of my wealthy patients to financially help patients who are poor and not well-educated in setting up small shops. Some ask for help buying a house but I haven't been able to find any sponsor for that."*

In fact, lack of funds is a "huge barrier" for polio treatment in government-run hospitals, but one of his most steadfast collaborators on the frontline of India's polio eradication efforts is Rotary International. *"Since 2001, Rotary has been very supportive, funding 50 per cent of the expenses for reconstructive surgeries at St Stephen's."*

While Rotary Clubs organise health camps where the needs of polio patients are assessed, and non-profits such as the Jaipur Foot provide free prosthetics, no other hospital in India has a ward devoted to polio patients, says Dr Varghese. *"There's only a handful of senior*

surgeons who have the skills and the wisdom to assess and do corrective surgeries. Corporate hospitals are not interested as polio is a poor man's problem."

For Dr Varghese, there's little time to rest. Although there are no accurate figures as to the total number of polio-affected people in India, health experts put the number at over four million. Most of the patients are from the northern Indian states of Uttar Pradesh and Bihar, which recorded the country's worst affected polio cases.

"There are so many out there who need help. I am only doing a small bit," he says.

He wants to heal more, and frequently travels around the country, training young surgeons and medical students on how to address conditions such as club foot and polio. *"It's just another way to help more patients,"* he says. *"I train doctors at government-run medical colleges because that is where the poor go."*

"But when students come up to me and thank me for my classes, I feel all that I am doing is worth the effort," he adds. Recently, Microsoft founder Bill Gates on his Facebook page described Dr Varghese as his "inspiration" and his "real-life hero" for *"fighting and [having] dedicated his life for polio eradication in India"*.

"I feel more humbled than elated. While it feels good to be recognised, I am uncomfortable with the publicity," says Dr Varghese. *"However, my work continues as before ..."*

Working day: In the last three decades, Dr Varghese's work routine, a testament to his persistence, has remained the same. *"My working day starts at 5:45. I have tea with my mother and watch BBC news. It's my way of keeping in touch with the world. When I leave home at around 7:15am, most people are sending their children to school or having their morning walks. When I get back it is usually close to midnight."*

Despite his hectic schedule, Dr Varghese says he manages to find time to do things unrelated to work. *"I love photography and making portraits. My friends often joke about it saying, 'Mathew is never without a camera, for one never knows when God will appear'."* He chuckles. *"I read obsessively as well."*

It's been seven years since polio was detected anywhere in India, and worldwide victory over polio is in sight too. It's a significant milestone that the surgeon quietly celebrates. When asked what his dream now is, his answer is simple. *"I wish there's no need for my ward. But I know there are so many out there, with paralysis, who will keep coming to me as long as I am alive."*



Consumer Health Forum of Australia, Thursday, 2 October 2018 – Media Release. Consumers Health Forum of Australia receives funding from the Australian Government as the peak national healthcare consumer organisation under the Health Peak and Advisory Bodies Programme

Who do we trust on health apps?

Health apps available on smart phones should be subject to an authoritative regulatory system that rates them for efficacy, according to an overwhelming majority of respondents to a survey conducted by the Consumers Health Forum through *Australia's Health Panel*.

The survey found that almost 90 percent of respondents said that there is a role for the government in regulating health and wellness apps. Almost 60 percent of respondents said that the government should review and rate health apps, while 31 percent said that the government should fund a separate organisation to perform the role.

The survey is the first to be undertaken through *Australia's Health Panel* which has been established by the Consumers Health Forum to harness community sentiment on contemporary consumer health issues.

It also found that consumers were most likely to trust recommendations by general practitioners and pharmacists on health and wellbeing apps. The results indicate that consumers trust their peers to give good recommendations on apps, but not completely. 'Big tech' avenues such as search engines like Google and Apple are much less likely to be trusted sources of health apps advice.

The CEO of the Consumers Health Forum, Leanne Wells, said the survey results highlighted the growing public demand for credible and effective oversight of health apps given their accelerating reach into every aspect of health care.

"As consumers increasingly turn to health apps to aid and monitor their health and treatment, there's clearly a need for people to know whether they can trust the apps, and whether they offer the best health option available and are worth the investment in time and money.

"To ensure the health system makes the most of the rapid developments in digital technology now gripping health care, the Federal Government should be moving now to assess how best to support and regulate the safety and quality of health apps.

"Given the rapid entry of health and wellbeing apps into health care, it is time now for the Government, consumers, health providers and app companies to come together to determine the fundamental principles that should govern this activity.

"The CSIRO's recent Future of Health report states that there were approximately 318,000 mobile health apps as at last year. While that presents increasing opportunities for consumers to manage their own health, many remain unregulated despite making health claims, and they have no accountability for health outcomes. As the CSIRO report suggests, highly engaged consumers are demanding faster, cheaper, more personalised and preventative health solutions. There is enormous benefit to be gained by more widespread use of health and wellbeing apps to monitor and self-manage health conditions, but also to 'nudge' good lifestyle behaviours and choices," said Ms Wells. "However, the digital divide in the community is real: enhancing digital health literacy for people to benefit from this technology is becoming more important. As the CSIRO report says, we need to develop robust consumer rating tools, symptom checker apps, and publicly available information sources for such health services.

"The value of the findings of Australia's Health Panel is that while they reflect the responses of a modest sample of 260 respondents, they nonetheless give an insight into how people are viewing this relatively new and still largely unregulated development in health care.

"Importantly, the sentiments expressed by Panel participants flag areas where we need to do more research and policy development. When health and wellness apps are such that they start interacting with the more formal health system, further questions emerge such as whether they should form part of a treatment plan or even be prescribed and whether they should attract government funding in some form.

"The survey highlights the important role Australia's Health Panel can play in bringing to policy-makers' attention the thinking of the community on vital issues," Ms Wells said.

Australia's Health Panel is a recent CHF initiative designed to complement the advice and insights we draw from our extensive membership. Interested members of the community can register to be on the Panel by going to <chf.engageable.net>.

A copy of the report: *Results of Australia's Health Panel Survey on Recommendations and Regulation of Smartphone Apps for Health and Wellness* can be found at <chf.org.au>.

Vale - Dr Margaret Cooper OAM

By Nola Buck

It is with sadness that we report the passing of life-long advocate for people with disabilities, Dr Margaret Cooper OAM, on Saturday, 27th October 2018. Although Margaret was a member of Polio NSW, she lived in Victoria and had been the Vice-President of Post-Polio Victoria for several years.

Margaret contracted polio in 1947 at the age of 4. She lived a full, independent life, attended university, became a social worker, and worked full-time for 27 years.

In 2017 Margaret was nominated by Frances Henke for the Australian Human Rights Commissioner's *Best Achievement in Human Rights* award, and I believe the following quotation from that submission sums up Margaret's contribution to the disability rights movement both nationally and internationally.

"For over fifty years, Margaret Maxine Cooper has played a leading role in advocating on behalf of people with disability. Recently, she set up Post-Polio in Victoria, providing research to and communication with the government to get the needs of polo survivors recognised."

"Margaret began moving in activist circles in the 1970s participating in planning the International Year of the Disabled Person (IYDP), an event that made a huge difference to the lives of people with disabilities. Throughout the 1970s and 1980s Margaret was identified as someone who could lead and be a strong role model. Margaret took on the role of Vice-President (Policy) with Disabled People's International (DPI Australia)."

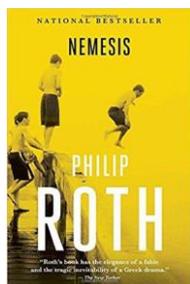
"Margaret attended the DPI Asia Pacific Regional Assembly in 1984 and DPI World Assembly in 1985. She was one of a large group of women who refused to participate in the conference unless their issues were discussed at length. Her leadership placed women's issues firmly on DPI Australia's agenda."

People who have had polio and all people with a disability have lost a strong advocate in Margaret and we will miss her.



Below are two articles reprinted from Pa. Polio Survivors Network June 2018 <www.papolionetwork.org>

NEMESIS: by Philip Roth - A book review by Kathy Galletly



This story takes place during the polio epidemic of the summer of 1944. It is centered on the character Bucky Cantor, a playgrounds director in a park in Newark, NJ. Bucky witnesses the devastation as this terrifying disease cripples and takes the lives of the young boys on his playground.

The author describes the absolute helplessness and grief of parents who watch their young healthy children being struck down, one by one, by this awful illness. Terror takes over the city as the disease escalates. Where is this polio coming from? Who or what is causing this awful petulance? Is it the summer sun, the drinking water, the hot dogs at the local eatery, or the dirty Italian boys who spit on the ground? The terror, the anger, the frustration and the prejudice escalates. Would escaping to the Pocono Mountains in Pennsylvania be the cure?

Philip Roth is a master at capturing the horror of these terrible epidemics; you feel the escalating fear and sadness with every page. For many of us who were old enough to realize the survivors that we are. On a personal note – if you are aware of anyone who has a problem with fascinating their children, suggest they read this book.

AFib Medications and Fatigue by Dr William DeMayo Q&A Clinic



Question: I had polio at 3 months old – my right leg was affected. Now I'm 65 and have PPS. I have AFib (Atrial Fibrillation) and was put on Eliquis and Metoprolol. Can either one of these medications cause pain and make you tired all the time? I've always had fatigue issues. It seemed to get worse after taking these medications. It's very difficult, as you know, to find someone who knows about PPS.

Answer: In short, Yes!

Your medications and medical condition can certainly be causing your fatigue. In fact if functional loss is primarily from fatigue, and there is not clear focal weakness and atrophy that has worsened in recent years, the issues could be entirely medical and not PPS at all. Since I don't have a full history, I am simply saying that to emphasize the functional impact of the medical issues at hand rather than to say PPS is not the cause (that is a specific diagnosis that needs to be between you and your treating physician).

Atrial fibrillation is an uncontrolled rapid and irregular beat of the atrium (top chamber) of the heart. Contractions can be so quick that the actual pumping of blood is affected leading to the risk of developing a clot in the atrium that could later be pumped out into the circulation and cause a stroke. This risk is addressed by the Eliquis (an oral blood thinner). Eliquis itself has a few side effects but the big concern is uncontrolled bleeding – it is an important drug to be aware of but not pertinent to your current complaints. Metoprolol on the other hand has common side effects of fatigue, sleep disturbance, and even depression. It is meant to slow the heart and counteract the potential rapid heart rate of the AFib. If mild, these are sometimes symptoms that need to be tolerated since the rapid heart rate can be a bigger issue. This risk/benefit ratio is very patient specific and well beyond the scope of this reply. Nevertheless, it is certainly possible that the fatigue is entirely due to Metoprolol and this should be discussed with a cardiologist. Sometimes other medications are available OR a simple dose adjustment is needed.

Lastly, Atrial Fibrillation can occur in isolation but also can occur in the setting of heart valve issues or coronary heart disease. You have not mentioned those diagnoses but, if present, they can also clearly contribute to fatigue and loss of function due to ineffective cardiac output (the amount of blood pumped out with each beat).

In summary: Yes, medications can certainly be playing a role and risks/benefits of medications in this setting is very individualized and best addressed between the patient and their PCP (primary care physician) or cardiologist.

On a separate but related note, it struck me that you were not aware that Metoprolol causes this side effect. There are easily accessible resources online and it is certainly something your pharmacist could tell you about. It is surprising that your prescribing physician did not mention it or you did not recall that he did. (Additionally, I am making a presumption that you did not bring up the fatigue as a clear issue and ask about the medication.) This might be a situation where you have a doc who is just not taking the time OR that you are not clearly organizing your concerns and questions in advance, often it's a combination of both. Either way, I am certain that your PCP or cardiologist will engage this once you bring it to their attention. If you are not satisfied with the response after a couple of attempts, then it might be a good idea to seek care elsewhere.

I hope this helps. Warm Regards from my temporary home in the UAE.

Summary of Anesthesia Issues for the Post-Polio Patient

Polio results in widespread neural changes, not just destruction of the spinal cord anterior horn (motor nerve) cells, and these changes get worse as patients age. These anatomic changes affect many aspects of anesthesia care. No study of polio patients having anesthesia has been done. These recommendations are based on extensive review of the current literature and clinical experience with these patients. They may need to be adjusted for a particular patient.

1. Post-polio patients are nearly always very sensitive to sedative meds, and emergence can be prolonged. This is probably due to central neuronal changes, especially in the Reticular Activating System, from the original disease.
2. Non-depolarizing muscle relaxants cause a greater degree of block for a longer period of time in post-polio patients. The current recommendation is to start with half the usual dose of whatever you're using, adding more as needed. This is because the poliovirus actually lived at the neuromuscular junctions during the original disease, and there are extensive anatomic changes there, even in seemingly normal muscles, which make for greater sensitivity to relaxants. Also, many patients have a significant decrease in total muscle mass. Neuromuscular monitoring intra-op helps prevent overdose of muscle relaxants. Overdose has been a frequent problem.
3. Succinylcholine often causes severe, generalized muscle pain post-op. It's useful if this can be avoided, if possible.
4. Postop pain is often a significant issue. The anatomic changes from the original disease can affect pain pathways due to "spill-over" of the inflammatory response. Spinal cord "wind-up" of pain signals seems to occur. Proactive, multi-modal post-op pain control (local anesthesia at the incision plus PCA, etc) helps.
5. The autonomic nervous system is often dysfunctional, again due to anatomic changes from the original disease (the inflammation and scarring in the anterior horn "spills over" to the intermediolateral column, where sympathetic nerves travel). This can cause gastro-esophageal reflux, tachyarrhythmias and, sometimes, difficulty maintaining BP when anesthetics are given.
6. Patients who use ventilators often have worsening of ventilatory function post-op, and some patients who did not need ventilation have had to go onto a ventilator (including long-term use) post-op. It's useful to get at least a VC pre-op, and full pulmonary function studies may be helpful. One group that should all have pre-op PFTs is those who were in iron lungs. The marker for real difficulty is thought to be a VC < 1.0 liter. Such a patient needs good pulmonary preparation pre-op and a plan for post-op ventilatory support. Another ventilation risk is obstructive sleep apnea in the post-op period. Many post-polios are turning out to have significant sleep apnea due to new weakness in their upper airway muscles as they age.
7. Laryngeal and swallowing problems due to muscle weakness are being recognized more often. Many patients have at least one paralyzed cord, and several cases of bilateral cord paralysis have occurred post-op, after intubation or upper extremity blocks. ENT evaluation of the upper airway in suspicious patients would be useful.
8. Positioning can be difficult due to body asymmetry. Affected limbs are osteopenic and can be easily fractured during positioning for surgery. There seems to be greater risk for peripheral nerve damage (includes brachial plexus) during long cases, probably because nerves are not normal and also because peripheral nerves may be unprotected by the usual muscle mass or tendons.

For more information:

Review "*Post-polio Syndrome and Anesthesia*" by David A Lambert, MD; Elenis Giannouli, MD; and Brian J Schmidt, MD; The University of Manitoba, Winnipeg, Canada, in the September 2005 issue of *Anesthesiology* (Vol. 103, No. 3, pp 638-644). This article reviews polio, post-polio syndrome and anesthetic considerations for this patient population.



Polio Oz News

September 2018 – Spring Edition

Paris Rehabilitation Congress

**By Paul Cavendish,
Clinical Health Educator**

The International Society of Physical and Medical Rehabilitation held a Congress in Paris during early July.

There were a range of topic areas covering all areas of rehabilitation and an array of products that sparked plenty of interest among attendees. Of particular note, and my reason for attending, was a focus session on polio specifically featured in the program. You can read about each presentation from this session [here](#).

It was really positive to hear the chairs introduce this session, calling for greater medical support and services for people with a history of polio despite the number of poliomyelitis cases have, thankfully, diminished. This message was well received from the large number of attendees interested in hearing more research on the Late Effects of Polio.

A particular highlight of this program was the inclusion of research conducted in Australia by Polio Services Victoria, a service of St Vincent's Hospital Melbourne. The presentation was delivered by one of the key researchers and Physiotherapist from St Vincent's, Claire Formby, discussing physical activity patterns of younger polio survivors. This again highlighted the need for accurate statistics on the number of people across Australia who have a history of polio. Without this, there will



continue to be difficulty in adequately planning and providing services to meet the challenges of a complex condition, especially as a polio history interrelates with ageing and other health conditions.

Professor Kristian Borg (Karolinska Institute, Sweden) presented an overview of Post-Polio Syndrome (PPS), why he is so interested in the condition, and treatment options for inflammation within the body of those with a history of polio. There remains hope with this work but still a number of significant hurdles to overcome before there is a specific product on the market to deal with the symptoms of fatigue that polio survivors experience.

It was great to see a number of young French Rehabilitation Specialists who undertook PPS as a focus with their work, and continue to investigate improving symptom

management. In fact, I was pleasantly surprised to hear how the French Post-Polio organisation—who had been given a booth free of charge by the organising committee in order to meet more medical and health professionals — spoke so appreciatively for their medical professionals.

There was plenty of interest in technology throughout the Congress. This is an area moving so fast and the potential for enabling greater support to people with a range of physical limitations is quite impressive.

A consistent theme from this Congress was on the potential of brain stimulation to improve, or regenerate, movement patterns in conditions. A presentation from Japan investigated this in regards to Post-Polio Syndrome.

(cont'd P5)

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Representing polio survivors
throughout Australia

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“**Spring is a season of the
soul to regain its strength.**”

~ Lailah Gifty Akita ~

President's Report



Gillian Thomas

I don't know about you but I'm always pleased when winter's chill becomes less severe and the sun gets strong enough to start warming my bones. The older I'm getting, the longer the winters seem to be! I confess to being quite jealous of Maryann as she jets off to warmer climes for a well-deserved holiday.

Apart from being President of Polio Australia, I am also the Business Manager (volunteer), and I am delighted to advise that our Financial Report reveals we are in the strongest financial position we've been in since we were incorporated in 2008. Of course, this is all thanks to a three year Federal government grant which pays for the Clinical Health Workshops Program; a two year sponsorship donation from Spinal Life Australia; and another incredibly generous personal donation from Jill Pickering, which pays for our Community Development Worker, Steph Cantrill. We also received an unexpected but very welcome donation from St George Association for People with Physical Disabilities for \$10,000, being the balance at the cessation of their operations. With the increased funding enabling the Polio Australia team to be greatly expanded, our programs in support of polio survivors across Australia have likewise been greatly extended.

Now that we have seven staff members, Polio Australia has recently had a review of its governance functions and has established two Board Sub-Committees for:

1. Governance and Risk Management; and
2. Finance.

These Sub-Committees have

prepared three new Policies covering these areas, and will now be working on related Procedures.

We have also recruited a new Independent Board Member, Noel Will, who, prior to retirement, was a teacher for 16 years, and in the financial services industry for 22 years, primarily as a financial planner.

Other changes to the Board structure have seen Brett Howard move from Treasurer to the position of Vice President, which has been vacant since the 2017 AGM. Alan Cameron has become the new Treasurer, a role he also fulfills for Polio NSW. We believe these changes will assist Polio Australia in strengthening its Governance role and ensuring the charity continues to comply with relevant legislation. You can read more about all the Board Members [here](#).

This year, our Annual General Meeting will be combined with both our *Walk With Me* event, and the Health and Wellness Retreat being held in Glenelg, South Australia in October. As our Board members come together from across Australia, we have decided that it is both more economical and less tiring for those living with the Late Effects of Polio! This combination of meetings also gives everyone the opportunity to participate in two of Polio Australia's key activities, and enables the State Polio Networks to generate funding themselves, with 50% of all *Walk With Me* donations going to the states. Have a look at the participating 'Teams' [here](#). We encourage you to support both Polio Australia and your State Network by donating to your local team.

As the above shows, and as reported elsewhere in this issue, what a difference 10 years of effort and a growing funding base can make. ●

Gillian

From the Editor



Maryann Liethof
Editor

Hooray! Spring has just about sprung, and I'm just about to go on holiday for the month of September!! It's the first time I'm leaving the office in the very capable hands of my amazing 'Team'. I feel supremely confident that Polio Australia's programs will happily chug along whilst I'm having my break. It's a fantastic feeling, I can assure you.

So completing this edition of *Polio Oz News* is my final task before I pack up my desk. I will certainly have to be alert when I return in October, because we have a lot scheduled for Polio Awareness Month, including the Polio Health and Wellness Retreat. The reason there is no further promotion of the Retreat in this edition is because all the places have now been filled! If you would still like to read more about the Retreat, click [here](#).

Paul Cavendish, our Clinical Health Educator, has also been travelling recently, although he assures me that his trip to Paris was *purely* to find out what's being done in the area of post-polio and rehabilitation and share it with you. Apparently, he didn't even take time to sip wine on the banks of the Seine! He really does take

his work very seriously . . .

We are currently seeking feedback on 'orthotics use', and also requesting people's experience of any difficulty you may have had accessing assistive technology such as mobility aids, orthotics, and home modifications through MyAgedCare. On page 4, you will find more information on how to contribute your stories which we can then share with health professionals, and provide 'case studies' to the government. Please help if you can.

Another program area Polio Australia is starting to develop further is reaching out to "The Next Generation" of polio survivors. We have been Skype-meeting with a small focus group of polio survivors born from 1975 onwards, who have given us some excellent advice on the type of information they are seeking at this stage of their lives, and how they would like to receive it. Read more on Page 7.

Other offerings include *The Saga Of Billy The Kid (ney)* by Dr John Tierney on Page 8, and information on My Health Record on Page 11, where you will also see the rather disturbing news of a polio outbreak in nearby PNG. This is topped off by a couple of fascinating articles from the USA on Mona Randolph, one of their last iron lung users, and FDR.

Take your time and smell those roses! 🌹 *Maryann*

Polio Australia Celebrates 10 Years!



"So much information to re-read, and new treatment techniques and strategies to implement in my clinical work. The biggest thing I got from the session was that polio survivors are strong, determined, capable people, and are not to be underestimated!"

"Thank you so much for this informative presentation. It was greatly appreciated. To hear that my symptoms are 'normal', and that I'm not alone, was wonderful."

August 2018 marked Polio Australia's 10 year anniversary. To celebrate this achievement, we asked "How has Polio Australia helped you in your experience with post-polio?" You can read some responses above. Take a look at our 10 year timeline featuring highlights of our achievements over a memorable ten year period [here](#). 🌟

Orthotics Use and Satisfaction Survey

Polio Australia is seeking feedback of polio survivors on orthotic devices and your satisfaction levels with these to provide this information to health professionals who work with orthotic prescription. This includes presenting this information to those who make customised footwear at their annual conference later this year.

Your contribution to this survey will help us continue to reach our vision that all polio survivors in Australia have access to appropriate health care and the support required to maintain independence and make informed lifestyle choices.

Please find link to orthotics questionnaire [here](#).



Survey - Orthotics Use and Satisfaction

Polio Australia is seeking feedback from Polio Survivors on orthotic devices and your satisfaction levels with these to provide this information to health professionals who work with orthotic prescription. This includes presenting the information to those who make customised footwear at their annual conference later this year.

[Click to view survey](#)

Assistive Technology For Older People—Case Studies

As a member of the Assistive Technology for Older People (ATOP) Alliance, Polio Australia is seeking real-life stories from people over the age of 65 who are experiencing challenges with funding for assistive technology (home modifications, adaptive equipment, orthotics, etc).

The ATOP Alliance recognises that ageing with a disability is different from ageing in the general population, and that those with disability, such as those living with Late Effects of Polio or Post-Polio Syndrome, often have greater and more specific needs. We therefore need stories like yours to strengthen our voice and let the government know that you need more than what's currently on offer!

Particularly, we are wanting to hear from people who are linked in with MyAgedCare and finding that you still need to self-fund equipment. You may, for example, have an aged care package, but find that the allocated funding is only just enough to cover the services you need and doesn't allow any additional funding for equipment.

If you're able to help, please get in touch with Steph Cantrill, Polio Community Officer, on 0466 719 613 or steph@polioaustralia.org.au. Ideally, we'd love to be able to use your name and include a photo. If that's beyond what you're willing to offer, even anonymous stories would be helpful – the more stories we have, the stronger the voice! 🌟



Paris Rehabilitation Congress (cont'd from P1)



The case study he presented of improved hand function after trans-cranial direct stimulation was amazing. It will be interesting to see if these improvements from this technology will continue given the issues of long-term loss of motor neurons and the demand placed on the existing/fatigued giant motor neurons in the spinal cord. We are, however, still learning of the potential our bodies have and, without trying, we can never be certain of anything.

A huge array of rehabilitation devices and equipment was available with the adjoining trade display. A novel product with great potential was foot orthotic assessment. With a simple insole, professionals are able to gather a picture of how a polio survivors walk in their own environment

(accounting for the stairs, slopes, activities) rather than a quick clinical assessment. They claim their pressure mapping information that is obtained from this insole is accurate and can lead to better prescription. A concern for both parties with orthotic assessment is *"did they get the right information?"* Providing an Orthotist with feedback on how someone puts pressure through their foot at home with and without various devices has great potential to get the prescription right.

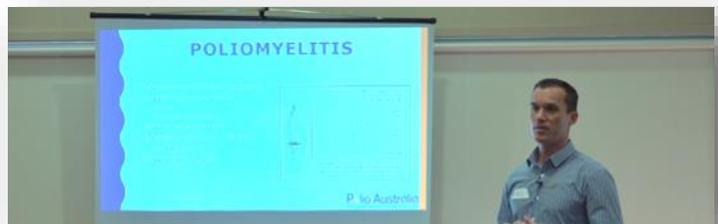
The area of robotics is also fascinating and offers plenty for rehabilitation and home assistance. Although much of this potential has yet to result in a commercial product at an accessible price point, the funding and concepts that are emerging in this field is nothing short of amazing. From robots that can perform food preparation and other household tasks with intuitive features to recall recipes or scan and reach for items, e.g. *"where did I put those keys/phone/wallet"*, was incredible. There were a number of studies also looking at how to address social isolation, often with a combined approach of features that act similar to Skype but enable a 'home tour' for family and health professionals, along with simple platforms to enable photo slides of past experiences, family, as well as playing favourite music all from a single device. These concepts can mean a paradigm shift for most of us, but it was interesting the researchers were well aware of the need to make sure their developments really assisted people and not create an environment where a product replaces human interaction, a vital element for everyone's health and wellbeing. 🌟

Upcoming Clinical Practice Workshops

UPCOMING CLINICAL PRACTICE WORKSHOPS

BRISBANE	13TH SEPTEMBER 18
BUNDABERG	15TH SEPTEMBER 18
LITHGOW	24TH SEPTEMBER 18
ORANGE	25TH SEPTEMBER 18
BROKEN HILL	28TH SEPTEMBER 18
PORT PIRIE	2ND OCTOBER 18
ADELAIDE	4TH OCTOBER 18

CLICK HERE TO VIEW MORE
DETAILS & TO REGISTER



Quality Education

Workshops offered by Polio Australia are developed and driven by best-practice research emerging from Europe and the USA. Paul Cavendish, Accredited Exercise Physiologist with a neurological background, delivers the workshop with vital contributions from 'lived experience expert' polio survivors.

Who Should Attend?

Allied and other health practitioners such as: physiotherapists, occupational therapists, orthotists, exercise physiologists, nurses, podiatrists, speech pathologists, dietitians, social workers, case managers, and anyone else who is interested in knowing more about the post-polio body. 🌟

Supporting Polio Australia

Polio Australia would like to thank the following individuals and organisations for their generous support from 1 May to 31 July 2018. Without you, we could not pay our rent, core operating expenses, or management staff!

Hall of Fame

St George Association for People with Physical Disabilities—\$10,000
 Anonymous—\$10,000
 Jenny Jones—\$2,000
 Michael and Rachel Evans—\$1,000
 Margery Kennett—\$1,000

Total—\$24,000

General and Regular Donations

Anonymous	Elizabeth Brooker	Jill Burn	Scott Cantrill	Walter Liddelow
Wilf MacBeth	Dorothy Robinson	Liz Telford	Gillian Thomas	
Joyce Thompson	Helen Tracey			

Total—\$1,795

Rotary Club Donations

Rotary Club of Mackay (Qld)—\$2,000
 Rotary Club of Geelong Central (Vic)—\$1,000
 Rotary Club of Albany Creek (Qld)—\$500
 Rotary Club of Kerang (Vic)—\$300
 Rotary Club of Geelong East (Vic)—\$250
 Rotary Club of Ivanhoe (Vic)—\$250
 Herman Vorster (Qld)—\$200
 Karin Kolenko (Qld)—\$100



Total—\$4,600

Grand Total—30,395

Walk With Me

Glenelg, South Australia

11th October 2018

Polio Australia's annual fundraising event

[Click here for details](#)

Polio Australia's annual "Walk With Me" event aims to raise awareness about the Late Effects of Polio.

Funds raised allow us to continue to support polio survivors and provide education to health professionals.

WHEN:

ASSEMBLE:

WALK:

DONATIONS:

Thursday, 11th October 2018

3:00pm Between Moseley Square and Glenelg Pier

3.30pm - A relaxed 1km walk or wheel in the sunshine, along the beautiful Glenelg beach esplanade

Whether or not you are 'walking' on the day, please [donate](#) to 'Team Polio Australia' or support your own State Polio Network



Donations for this event will be accepted until 31 December 2018.

The Next Generation

Polio Australia commenced 10 years ago to provide a national focus, and represents the state-based Polio Networks which were all established in Australia in the late 1980's. As such, most of the information on the Late Effects of Polio (LEoP) has been developed with older Australian or European polio survivors in mind.

However, Australia has also become home to younger, migrant polio survivors. We have found that younger polio survivors are currently not connecting with either Polio Australia or the state Polio Networks, so are not accessing our information on the LEoP, and how best to manage the condition into the future.

Polio Australia is committed to supporting younger polio survivors, and we are eager to build a community of 'Next Generation' Polio Survivors. Throughout August, we conducted a focus group, inviting polio survivors born in 1975 onwards to contribute. We discussed the issues that they are currently facing, and what Polio Australia can do to help this demographic.

Some of the main themes were:

- National Disability Insurance Scheme (NDIS)
- What precautionary measures should younger polio survivors be taking to avoid a worsening condition;
- What support and resources are available for polio survivors;
- Desire to connect with other polio survivors around the same age;
- All survivors expressed that they were simply "busy with everyday life stuff", and this wasn't a major "focus";
- They want to access clear, succinct information – a forum would be useful;
- Tips on building self-esteem; and
- Maintaining independence.

Polio Awareness Month – October

October is Polio Awareness Month!

In 2018, Polio Australia will work with the theme: ***The life stages of post-polio.***

As we have identified with our *Next Generation* polio survivors, there are a range of post-polio issues that affect people across all stages of their lives.

We will be focusing on how Polio Australia's programs can support people in their 20's, right through to their 90's—and beyond!

If you'd like to tell your story, contact Rachel on rachel@polioaustralia.org.au.

To check for information updates, please go to: www.polioaustralia.org.au/polio-awareness-month/

Meet Vilas

Born in India in 1982, Vilas contracted polio at the age of 2. He first came to Australia in 2013, and is now a permanent resident living in NSW with his wife and infant son. Vilas works at an educational institution and enjoys water sports swimming.



You can read more about our Next Generation Focus Group [here](#).

Moving forward, Polio Australia will be producing a series of updated resources which more effectively target the Next Generation, and allow them easier access to the information they desire.

To help us create some fresh design ideas, as well as explore information delivery options, Polio Australia has established a partnership with Swinburne University in two project areas:

- Professional Intern (Charlotte), will be developing video content featuring Next Generation polio survivors; and
- 'The Bureau', a group of graphic design students, are working on developing some fact sheet designs.

More details on the progress of these exciting projects will be provided in the Summer edition of *Polio Oz News!*

Other things happening in October:

2018 Polio Health and Wellness Retreat
in Glenelg, South Australia
on Thursday 11 to Sunday 14 October
[Now Full!](#)

Walk With Me Annual Fundraising Event
also in Glenelg, South Australia
on Thursday 11 October
[Donate Now!](#)

Polio Network Victoria's Polio Day
"We're still here!"
at the Hawthorn Arts Centre, Victoria
on Saturday 20 October
www.polioday2018.eventbrite.com.au
Ph: 1300 704 456

The Saga Of Billy The Kid(ney)

By Dr John Tierney

From time to time, I would muse about how I might depart this life. In the miracle world of modern medicines and operations with highly sophisticated technologies, the life exit options are rapidly narrowing. Once at a Sydney Art Gallery lecture on the enlightenment period, the lecturer cast his gaze across his flock of 300 greying heads in the audience and told us, "if this was the 18th century, most of us would not be here, we would be residing in the local cemetery."

For many of our forebears, in their short and often brutal life, making it past 60 was quite an achievement. Widespread old age is a very modern phenomenon. As to the manner of their departure from this life, our ancestors were spoilt for choice. There were so many dangers that could snuff out human existence, particularly for the young.

Now, in 21st century Australia, death is most likely to come to us via a much narrower range of options including heart failure, stroke, cancer, accident, or dementia. A good guide to our likely final fate usually lies in our family history. The men in my family are heart people. As my very fit and healthy dear father was approaching his seventieth birthday, he suddenly died from a massive heart attack, which came without any warning.

Just after I reached my seventieth birthday, as if on cue, I received a warning. As I chatted to a colleague in a coffee shop, suddenly it seemed as though I was talking from another room with a glass panel between us. I found out later that the cause of this strange sensation was likely to have been a lack of oxygen getting through to my brain, brought on by Arterial Fibrillation (AF) of the heart.

The effect of AF is that the four chambers of the heart beat very inefficiently and in an uncoordinated way. In my case, the bottom two chambers were playing Mozart and the top two, heavy metal. When my pulse rate was checked, instead of a steady 75, mine was beating at a rate of 70, then 92, then 38, then 84, etc.

Untreated, the likely outcomes of AF are either a stroke, a coronary or death. My heart came back to a regular beat of 75 after a massive electric shock was administered to it. That was three years ago and my pulse rate has stayed around 75 ever since. But just like my father and the men in the family before him, it seemed that I was on the death by heart failure track.

So, imagine my great surprise when I suddenly switched to a completely different and unexpected life-ending track. Early in 2018, I had my regular bi-annual *Late Effects of Polio*



MRI scan of the lumbar region of my spine. The radiologist carefully examined the MRI of my increasingly misshapen spine and ongoing degeneration, all caused by contracting polio at birth 72 years earlier because the delivering GP didn't wash his hands properly.

One MRI lumbar spinal scan clearly show my kidneys, which looked like two fried eggs [pictured above]. "That left kidney is a funny shape", he said. "What shape should it be?", I enquired. Deadpan, the radiologist replied, "kidney shaped". Within a week, my wife Pam and I sat in the urologist's office where, on the wall, a new CAT scan showed that my left kidney had developed a large 'complex cyst'. Peering at the image, the crusty old Scottish urologist said, "Humph!" No further diagnosis was needed because I knew exactly what he meant. As I suspected, it was a cancerous tumour. "Well, that left kidney will have to come out pronto", we were told.

In my fifty years of marriage to Pam, during which time we raised six children, life threw quite a lot at us. Whenever we were ever confronted by really bad news, we would go out to a restaurant for a nice dinner. It was our "Up yours!" to the world and 'the slings and arrows of outrageous misfortune'.

At our celebratory dinner the night following our visit to the urologist, Pam decided to cheer me up with a new nickname. My middle name is William, so the moniker that she came up with was 'Billy the Kid(ney)'. Singular, because I would only have one in the future. I have always been a 'glass half full' kind of a guy, and there actually was something to celebrate. The CAT scan was of the whole body trunk and it revealed that the cancer had not metastasized (spread) to any other body organ.

(cont'd P9)

The Saga Of Billy The Kid(ney) *(cont'd from P8)*

I am 72, and if the cancer had stayed undetected, I probably wouldn't have seen my 75th birthday.

Over dinner, I said to Pam, "I think that I have dodged another bullet". "What do you mean?" she asked. "Well, polio tried to take me out at birth; more recently, heart AF; and now kidney cancer. What else could possibly do me in?" I mused. She replied sweetly, "Me".

The operation was scheduled for five days later. I was on a very necessary fast track to head off the cancer escaping from the kidney, which could occur at any moment. But a series of unrelated events took place, which put in danger the good fortune of the early accidental discovery. It could have even restored the original trajectory of death from cancer. Had my destiny been always written in the stars? Was my number up and death back on track to happen in my early seventies?

A frustrating string of time delays occurred, set in train from unrelated sources. Finally, as the new delayed date approached, and now in the dead of winter, for the first time in my life I developed severe bronchitis. One night at 4:00 am I thought that I saw blood in my urine, but I wasn't sure. Had the kidney cancer metastasized already? The surgical team picked up on the growing sense of urgency and there was no further delay, even though my lungs had not fully recovered from bronchitis. Continuous breathing can be helpful during a four hour operation.

Pam kept a lonely hospital vigil for the entire day of the operation, but when I came to, I was so out of it on morphine, I really can't remember any of our conversation, or even that she had been there. I didn't even care, when I became conscious, that the nurse was changing over my penile catheter. In the disorientation and pain caused by major surgery, concerns about modesty and dignity just seem to disappear.

The comfort and affection of a large family really comes into its own during such times. Our six adult children have an ongoing light hearted competition as to which one of them is 'pet'. My eldest son, James, was the clear winner on this occasion, when he offered to donate one of his kidneys to me. I thanked him but declined his kind offer. It was lucky that I already had a spare one.

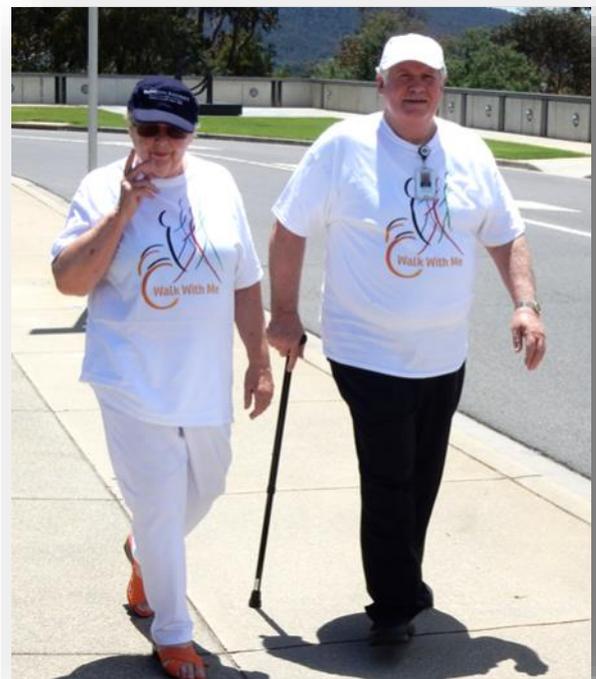
A week following the operation, I received a phone call from the medical research people. A biopsy of 'Billy the Kidney's' cancer cells revealed that they were dividing and multiplying very rapidly and in an unusual way. Fifteen medical research people wanted permission to research this and it was provided. As with Henrietta Lacks HeLa cell line (1951 USA), which was

instrumental in the development of Salk's polio vaccine, 'Billy the Kidney' had been removed in the nick of time, but now had a big chance to make something of himself, and possibly leave a mark on the world of medical research.

A week in a hospital bed gives you a lot of time to reflect. What if I hadn't made it through the operation and that was the end for me? Given the heart complications there was probably about a 30 per cent chance that it would have suddenly been all over for me, as it was for my father, exactly 40 years earlier. But I have been given another chance at life, so what should I do differently?

It is said that on their death bed, no one ever regrets not spending more time at the office. So now fully retired, with a large family, the way forward seemed clear to me. But what else? In the end days, life can be full of regret for many people. "Regrets, I've had a few . . ." crooned old blue eyes. In hospital, I reflected on what should I try to do to make some things right in my remaining time. That guide to living, *The Lord's Prayer*, provides some hints. In only 62 words, 12 words in that iconic prayer are devoted to one thing, forgiveness.

How easily it rolls off the tongue, "forgive us our sins as we forgive those who sin against us". The last part is the kicker! Easy to say but so hard to do. In our shared half a century of life, Pam would sometimes say to me, "When are you ever going to forgive 'X'?" I would reply, "About ten years after hell freezes over!" I now believe that, if ignored, we internalise hatred and it then literally eats at us, possibly triggering cancer. Now for the hard part, forgiving that bastard of a doctor who gave me polio! 🌈



Dr John and Pam Tierney at the 2017 Walk With Me event

Universal Design 2018



Now in its third year, the Australian Universal Design Conference will take place at the Brisbane Convention and Exhibition Centre on Tuesday 4 September and Wednesday 5 September.

Under the theme of 'Home and Away', the two-day conference features **THREE** keynote speakers covering the economics of inclusion, future of transportation, and a UK perspective on inclusive tourism.

Universal design is a process of thinking and designing inclusively, whether it is a house, website, product, service, or a learning program. Universal design is itself explained in a diversity of ways across the world: 'design-for-all' and 'inclusive design' are other terms used. Designing universally means being inclusive of a diverse population.

Universal design is an international movement recognised by the World Health Organisation, and the United Nations through the Convention on the Rights of Persons with Disability. They both cite universal design as a way to create greater social and economic inclusion for everyone. Australian state and federal policy documents also recognise universal design as the way forward in the National Disability Strategy. With the roll-out of the National Disability Insurance Scheme and policy changes planned for older people, everyone needs to be ready to embrace the principles of universal design in their daily work.

Why Attend

- Increase your knowledge in this expanding area of expertise
- Help shape the future of universal design in Australia
- Reflect on your own practice and research and learn from others
- Make valuable connections
- Discover the progress being made in Australia and overseas



Fold, Pack, Travel.

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Polio Outbreak In Papua New Guinea

PNG provinces getting second round of polio vaccine

Source: www.radionz.co.nz—20 August 2018

Morobe, Madang and Eastern Highlands provinces of Papua New Guinea are receiving a second round of the polio vaccination campaign from today through to September 2.

This comes after four recent cases of polio and dozens of suspected cases.

The PNG secretary of health, Pascoe Kase, said parents were being reminded to bring children under five years of age to the vaccination point.

It was important to get the vaccine in every round of the campaign to ensure full protection, he said.

From next week Enga, Chimbu, Southern Highlands, Western Highlands, Jiwaka and Hela will have their first round of vaccinations.

The campaign in the nine provinces aims to reach over 700,000 children under five.

A nationwide polio vaccination campaign is

planned for September and October targeting over one million children under the same age.

The World Health Organisation's representative in PNG, Luo Dapeng, said polio was a very dangerous disease with no cure and that vaccines were the only weapon to protect children in PNG.

The polio vaccine was safe, effective and free, he said.



The WHO's Regional Director for the Pacific, Dr Shin Young-soo provides oral polio vaccine in Lae in Morobe

My Health Record

My Health Record changes positive step for consumers

Source: Consumers Health Forum (CHF) [Media Release](#) – 1 August 2018

The Consumers Health Forum welcomes the Government's announcement that it will amend the My Health Record Act to strengthen safeguards to protect security and certainty of personal medical records.

"The announcement last night by Health Minister Greg Hunt of legislative changes states that no MHR record can be released to police or government agencies, for any purpose, without a court order," the CEO of the Consumers Health Forum, Leanne Wells, said.

"The Minister has also said that the legislation would be amended to ensure that if any Australian wished to cancel their record, they could do so permanently, with their record deleted from the system."

"The legislative tightening on access to MHR files would "remove any ambiguity on this matter", Mr Hunt says.

"Although the Digital Health Agency's policy is clear and categorical that no documents have been released in more than six years and no documents will be released without a court order,

enshrining this provision in legislation adds clarity and certainty to MHR safeguards.

"MHR will only succeed in reaching critical mass in terms of its reach and effectiveness if Australians – both consumers and clinicians – can trust that patient information is secure and is seen only by those authorised to see it.

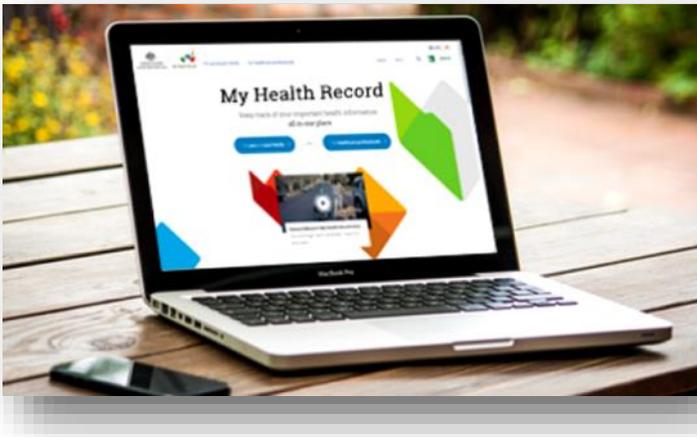
"These changes are important. The MHR system is in place and the more it is used the more it should evolve and improve over time based on consumer and clinician experience with it.

"The power of MHR to reduce safety risks and clinical harms that arise from doctors not having the right information at their fingertips is a major advance and must be kept in mind in balancing the actual benefits versus the possible risk of a potential privacy breach.

"We welcome the Government's commitment to an extended education campaign and the prospect of more time for consumers to consider whether to opt out, a move which the minister has flagged he will be discussing with other Health Ministers today.

"The Government is proposing more support for doctors to participate in MHR as there is a need for much more active involvement by the medical profession if they and their patients are to gain full benefit.

My Health Record *(cont'd from P11)*



"Likewise, the first fortnight of the opt-out period has indicated there needs to be a more comprehensive and active information and education effort for consumers."

"We have previously proposed that the Government distribute explanatory letters to all households providing factual details about MHR."

"The latest changes make such a public information initiative even more worthwhile."

"The Consumers Health Forum next week launches a series of webinars on MHR for the benefit of health consumers because we believe a well-informed public is a key to the success of MHR," Ms Wells said.

Register here: <https://chf.org.au/register-follow-my-health-record-webinar-series>

Health Insurance

Health insurance needs in-depth scrutiny in the public interest

Source: Consumer Health Forum (CHF)
[Media Release](#) – 7 August 2018

Discounts on health insurance premiums for young people under 30 would erode the community-sharing principles of private cover, further entrenching a two-tiered system, the Consumers Health Forum said today.

In its submission to the Senate Community Affairs Community inquiry into health insurance legislation, the Consumers Health Forum said a Government proposal to allow health funds to introduce age-based discounts would undermine community rating, a fundamental principle of health insurance aimed at ensuring equal premiums regardless of age or health status.

"Such changes to health insurance rules seem designed largely in the health funds' interests to shore up declining member numbers but go nowhere far enough to respond to the frustration and concerns many consumers have about their health cover," the CEO of the Consumers Health Forum, Leanne Wells, said.

"The latest statistics showing a significant year-on-year overall fall in health insurance members, particularly the 5.3 per cent drop among those in their 20s, highlights the need for a searching examination of Government assistance and regulation of health insurance."

"While we can understand health funds' need to recruit younger, healthier members, the discount plan seems destined to be taken up by the minority of young adults who have the means, while the majority who struggle with high costs

on modest wages will see little reason to take up insurance."

"It is also likely that those who do join will take out minimum cover and tend to rely on public hospital care if they need it, defeating the objective of taking pressure off public hospitals."

"There are a number of other problems with the proposed amendments to health insurance rules, including the provision that funds are not required to make discounts available for all ages between 18 and 29, or to maintain offering those discounts throughout the life of the policy."

"Consumers will have no assurance as to whether they will continue to have access to a discount as these can be cancelled."

"The lack of certainty for consumers in these and other proposed rule changes that tend to favour the health funds seems to contravene the aim of improving transparency and making insurance simpler for consumers. That is after all meant to be the aim of this reform package."

"If there is a desire to move away from the community rating principle then there should be a full and transparent discussion about that rather than the proposed approach to chip away at the edges."

"Because of this and the complexity of the issues impacting on health fund consumers, the Consumers Health Forum has been calling for a Productivity Commission inquiry into private insurance for some years," Ms Wells said.

Meet One Of America's Last Iron Lung Users

By **Mary Kekatos**

Source: www.dailymail.co.uk – 21 August 2018

Missouri woman, 82, is still using the decades-old machine after she was paralyzed by polio at 20



- Mona Randolph, 82, from Kansas City, Missouri, contracted polio in 1956 when she was 20 years old
- She became paralyzed from the disease but was able to breathe on her own
- In the 1980s, she came down with post-polio syndrome and was forced to use the iron lung to sleep at night
- The machine has a motor and a pump that changes pressure inside the airtight chamber, which forces the lungs to expand and contract
- Randolph is one of three known people using the iron lung in the US because they are not made any more and most have switched to more modern aids

Six nights a week for the last 36 years, Mona Randolph has been put in the decades-old machine that helps her breathe. The 82-year-old's head sticks out on one side as her body sits in an airtight chamber where a motorized lever creates negative pressure and forces her lungs to expand. The contraption is known as an iron lung machine and Randolph, of Kansas City, Missouri, is only one of three people in the US to have survived polio that still uses it.

But the devices are no longer covered by insurance companies or serviced by manufacturers, which means that the owners like Randolph are completely responsible for their maintenance, she said in an interview with the [Kansas City Star](#).

Randolph came down with polio in 1956 when she was just 20 years old. The disease paralyzed her, but she was able to get away without using a respirator for years. Randolph told the newspaper that she contracted polio when she was age 20 and that the first sign was an intense headache as she was waiting for a bus to go

home. The headache turned into an extreme sensitivity to light and sound.

"Everything was off-key," she said. "I couldn't stand to hear people talking in the kitchen. They'd whisper and it would hurt my ears. I couldn't stand any light. Mom put blankets over the windows." On the third day after her headache began, she couldn't breathe and she was taken to St Luke's Hospital in Kansas City, where she was diagnosed with polio.

Polio, short for poliomyelitis, is a viral infection that is highly contagious and spread through person-to-person contact. About one in four people infected the virus have flu-like symptoms including a headache, sore throat, fever and nausea, according to the CDC. In most cases, the symptoms will last between two to five days before disappearing.

However, polio can result in serious conditions including meningitis - an inflammation of the membranes covering the brain and spinal cord - and paralysis. The CDC says that anywhere between two and 10 out of 100 people who become paralyzed from polio die when their breathing muscles also become immobilized.

A SHORT HISTORY OF THE IRON LUNG

An iron lung is a non-invasive negative-pressure ventilator, used to artificially maintain respiration during an acute polio infection. They were first used in the 1920s and work by producing pressure on the lungs that causes them to expand and contract so that patients can breathe.

In most cases it would only be used for one or two weeks, until the patient could breathe independently, but some polio survivors with permanent respiratory paralysis rely on them daily. They are now all but obsolete, replaced by positive-pressure ventilators such as modern day respirators.

Randolph's diagnosis was in 1956, just a year after the US government had approved the polio vaccine. However, it was widely marketed as being for children. Adults like Randolph were not considered to be at risk, the Star reported.

According to the National Institute of Neurological Disorders and Stroke, around 35,000 people were stricken with polio every year between the late 1940s and early 1950s. But after the nationwide campaign to get children immunized began, the numbers began falling drastically and, in 1979, polio was declared to be eradicated in the US.

At St Luke's Hospital, an iron lung sat in the basement, which had already fallen out of use at the time, and staffers brought it up and put Randolph inside.

America's Last Iron Lung Users *(cont'd from P13)*

The respirators were created in 1927 by two scientists at Harvard University. The machine has a motor and a pump that changes pressure inside the airtight chamber, which forces the lungs to expand and contract.

The iron lung was meant to be used until a person could regain the ability to breathe, about one to two weeks after infection. But some people, whose breathing muscles had become paralyzed, permanently relied on them.

Randolph was in the machine for three months and it took her eight months after she first fell ill to become well enough to sleep without a breathing machine, reported [KSHB](#).

Currently, Randolph is unable to move her left arm and has limited movement in her right arm, but she was able to get by without the iron lung for years. But, in the 1980s, she began to suffer from post-polio syndrome, which affects polio survivors years after their recovery.

In the 1980s, she [developed] post-polio syndrome, which affects polio survivors years after their recovery and she began having trouble breathing. This forced her to use the iron lung at night.

[People with post-polio syndrome] begin suffering from muscular weakness and fatigue, pain as their joints deteriorate and being unable to breathe or swallow properly.

Randolph was forced to use the iron lung at night, and is currently one of three known people in the US still using the machine. During the day, Randolph uses a CPAP machine, which increases air pressure in the throat so that the airway does not collapse when you inhale, according to Kaiser Permanente.

But at night, Randolph's husband Mark, and one of her good friends, put her into the six-foot-long tube which Randolph calls her 'yellow submarine', the Star reported. It takes about an hour as a sling transfers Randolph from her bed to the 700-pound behemoth. Randolph's head and neck are adjusted and blankets are placed over her so she doesn't get too cold. The couple lives in constant fear that of maintaining machine's condition.

The company that made the machines, JH Emerson, stopped doing so in 1970 and insurance companies do not cover the mainly obsolete machines. After a series of mergers, medical supply company Respirationics inherited responsibility of the machines.

In 2004, Respirationics gave iron lung users three



choices: choose another ventilator device, keep using the iron lung with the knowledge that Respirationics may not be able to repair it, or accept full ownership and responsibility, reported [Gizmodo](#). The news outlet reported that if the machine breaks down, Mark, a software engineer, or Randolph's cousin who is former aircraft mechanic repair it. Mark told Gizmodo that the cost of keeping the machine working is equivalent to buying a new car every year.

The respirators were created in 1927 by two scientists at Harvard University [pictured above]. The machine has a motor and a pump that changes pressure inside the airtight chamber, which forces the lungs to expand and contract.

Brian Tiburzi, the executive director of Post-Polio Health International (PPHI), told [Daily Mail Online](#) last year that there is a bit of reluctance from iron lung users to let go of the machine.

"Part of it is just habit," he said when asked why they might be hesitant to use more modern breathing aids. *"That's sort of what they have been used to all their life. Some people also use them because they have trouble with the masks, some leak, some people get sores, or find them uncomfortable to wear. The vast majority have switched."* He also said that the announcement by Respirationics in 2004 meant *"they were sort of told they were on their own."*

Randolph said she is a big advocate of people undergoing vaccinations to prevent themselves from ending up in a situation similar to hers. *"I believe getting vaccinated is the thing to do, but I also believe people ought to act according to their faiths,"* she said. *"It's a personal decision. But something like vaccinations that you can see the proof of with epidemics just seems more logical."*

Read the full story [here](#). 🌐

Franklin D Roosevelt Walking—Video



A newly discovered film shows Franklin D. Roosevelt, who had polio, walking

By **Michael E. Ruane**

Source: www.washingtonpost.com.au
—27 June 2018

On April 22, 1935, a tourist from New York named Fred Hill waded through the crowd at the White House Easter Egg Roll, pointed his movie camera at the South Portico and captured seven seconds of history.

As Hill filmed, President Franklin D. Roosevelt, who had been disabled by polio 14 years before, emerged and — with the help of a cane and his bodyguard — walked unsteadily to wave to the crowd.

Walking was something Roosevelt did with great difficulty. He looked awkward and vulnerable, and he was rarely filmed doing so.

On Wednesday, the Franklin D. Roosevelt Presidential Library and Museum unveiled the newly acquired Hill footage, which it says offers a fresh, remarkably clear glimpse into one of the great secrets of FDR's public life.

"When I saw [it] . . . I gasped," Paul Sparrow, the director of the library in Hyde Park, N.Y., said last week. "I had never seen this footage before, and we had a sense that no one had ever seen this footage before," he said.

Sparrow said newsreel cameramen were warned against filming FDR while he was walking, lest his disability be shown. The president could walk

only with heavy leg braces and assistance, and only for short distances. And even then he walked with a stiff, unnatural gait. "Mr. Hill . . . didn't know the rules so he just" ran his camera, Sparrow said.

The film of Roosevelt continues for another 30 seconds as the president's bodyguard, former New York City policeman Gus Gennerich, steps into the background. The president, then 53, wears a double-breasted coat and pocket handkerchief. He strides into the sun, hooks the cane over the balcony railing and greets the crowd. He smiles and waves, always keeping one hand on the railing. First lady Eleanor Roosevelt stands beside him, along with two of her nieces, Diane Roosevelt, 8, and Amy Roosevelt, 6, according to Roosevelt biographer Geoffrey C. Ward. With a final wave, Roosevelt slips the cane off the railing with his right hand. Gennerich reappears at his left side, and the group walks back across the portico.

"I was dazzled," Ward said of the new footage. "It's by far the clearest image I've ever seen of something that's obsessed me for 20 years."

The silent 16mm film, in black and white, was donated to the library, which is a part of the National Archives, in December by Richard Hill. He is a lawyer in Reno, Nev., and Fred Hill's grandson. The film was digitized for the library at a private laboratory in Rockville, Md.

Richard Hill said his grandfather was the bookkeeper for the family business — Hill and Sons, in Brooklyn, which had been founded as a horse wholesaler in New York — and later got into real estate in Nevada.

Franklin D Roosevelt Walking—Video *(cont'd from P15)*

The family wound up running a dude ranch in Reno, where his grandfather made dozens of home movies. He said he discovered the Roosevelt clip in the 1980s by accident when a local TV station was seeking historical footage of old Reno.

Hill, 66, said in a telephone interview that he had offered the clip to the library in the 1980s, but he lost interest and didn't follow up. He said he made the donation last year because he is getting older and it seemed like the right time.

"I've kind of jealously guarded this stuff," he said. Now, it "needs to go where it belongs . . . It's an important part of history that almost got away."

Roosevelt was a rising figure in Democratic Party politics in 1921. He was 39 and had been assistant secretary of the Navy and a candidate for vice president. But that summer he was stricken with polio and lost most of the use of his legs. His courageous recovery, and efforts to conceal the extent of his disability, are rich chapters in American history.

He mostly used a wheelchair to get around, although he often had to be carried by aides and sometimes crawled from one room to another on the floor, according to biographer Ward, who also was stricken with polio. Roosevelt fought to be able to walk.

"I must give principal consideration for at least 2 years more to getting back the use of my legs," he wrote a friend in 1926 about his political future. "Up to now I have been able to walk only with great diff. with steel braces and crutches, having to be carried up steps, in and out of cars, etc. etc. Such a situation is, of course, impossible in a candidate," he wrote.

"No movies of me getting out of the machine, boys," he told waiting cameramen as he was about to get out of a car the day he was elected governor of New York in 1928, according to Ward. The cameramen obliged.

"People didn't want him to be handicapped," Ward said. "We were in the middle of a depression. They wanted their president to be a vigorous, able person, and he wanted to fulfill that role." Of the hundreds of photographs taken of him, only a handful show him in his wheelchair, Ward said.

And footage of him "walking" is just as rare. "There are a number of very short, very blurry shots," Ward said in a telephone interview last week.

Four years ago, seven seconds of amateur film surfaced of FDR making his way up a ramp at Washington's old Griffith Stadium for the 1937 baseball All-Star Game. In August 1933, a doctor filmed him walking, again holding Gennerich's

arm and using a cane, at a public event in Poughkeepsie, N.Y. The clip lasts six seconds.

Brief, partially obscured footage exists of him walking at Mount Vernon in 1939, at his third inauguration in 1941, getting off a train in Boise, Idaho, in 1937, and at other public appearances in New York, according to the FDR library.

The known clips appear to total less than a minute. In Fred Hill's, "you really get to see . . . [FDR's] gallantry and also you get a pretty good glimpse of the way it's orchestrated," Ward said.

Gennerich, as well as being FDR's bodyguard, was "his enabler, that allowed him to walk," Ward said. "Roosevelt sometimes used his sons, who were also big guys, to do that. But Gennerich was the daily guy."

"It's like choreography," Ward said. "You watch him bring Roosevelt up to the railing. The minute he gets to the railing, he steps way back and then he goes back behind [a] pillar. And he doesn't come out again until Roosevelt is ready to leave," Ward said.

The president had "this amazing ability to look as if absolutely nothing was wrong," he said. "When you look at him, he looks like the most carefree man in the world."

But sometimes, the choreography didn't work. In June 1936, Roosevelt almost fell at the Democratic National Convention in Philadelphia at the University of Pennsylvania's football stadium, Franklin Field. There were 105,000 people present, according to news reports.

"Spotlights followed him as he made his halting way toward the microphones . . . to accept his renomination for the presidency," Ward wrote in his 1989 book about Roosevelt, "A First-Class Temperament." Holding a cane with his right hand and the arm of his son, James, with his left, he stopped to greet someone in the crowd. He lost his balance, the brace on his left leg gave way and he started to go down.

But Gennerich was near and caught the president under the arm just in time. (Five months later, Gennerich would die of a heart attack on a trip with Roosevelt to Argentina.)

"There I was, hanging in the air, like a goose about to be plucked," Roosevelt told reporters later. "But I kept on waving and smiling, smiling and waving." There is no known film of the mishap. And the speech he gave minutes later "was one of the most memorable addresses of his life," Ward wrote.

"There is a mysterious cycle in human events," Roosevelt said. "To some generations much is given. Of others much is expected. This generation of Americans has a rendezvous with destiny." ●

Can Polio Workers Overcome Complacency

By Carol Pearson

Source: www.voanews.com—18 July 2018

The move to end polio started in 1985 with Rotary International. At that time, polio paralyzed hundreds of thousands of children every year. There is still no cure, but two scientists developed vaccines against the virus in the 1950's.

Dr Jonas Salk produced one with an inactivated virus that could protect against polio without spreading the disease. Later, Dr Albert Sabin developed an oral vaccine with weakened strains of the virus.

In 1988, public and private groups joined the effort in the Global Polio Eradication Program. Members included governments, the World Health Organization, the United Nations Children's Fund (UNICEF), Rotary International, the U.S. Centers for Disease Control and Prevention (CDC) and the Bill and Melinda Gates Foundation.

Since then, the number of polio cases has dropped by 99.9 percent. Last year, 22 children were crippled by this disease. The wild polio virus exists in only three countries: Pakistan, Afghanistan and Nigeria, but it's still a global threat.

Dr John Vertefeuille, from the CDC said, *"This last mile is a complicated mile."* It's not just because of conflict or terrorism. *"It's extreme remoteness. It's very fragile health systems."* And in these remote conflict prone areas gaining access to children can be a major problem.

If polio exists anywhere, it can once again spread everywhere. Vertefeuille and other experts discussed strategies to realize a polio-free world July 10 at the Center for Strategic and International Studies in Washington.

Widespread unrest in Afghanistan has kept thousands of children from receiving polio vaccines this year. Conflict in northern Nigeria does the same.

What's more, the border between Afghanistan and Pakistan stretches for more than 2,000 kilometers. Thousands of people who cross this very porous border can easily transmit the virus in both countries.

While the funding and technical support has to come from large, private-public partnerships, immunization teams succeed best if they are local. Approaches have to take culture and customs into consideration.

In many places the vaccinators are women because women can go into the homes, talk to other women and gain access to the children.

Elsewhere, soldiers vaccinate children when they take over an area run by anti-government forces. Vaccination teams have to be prepared to move quickly when there is a lull in the fighting and to deliver multiple doses of vaccine in a short period of time.

Surveillance is just as critical. To end polio, you have to know where the outbreaks are. Community volunteers are a great resource. Some get cell phones so they can alert health officials if a child becomes paralyzed.

Another challenge is getting children in migrant groups vaccinated. Vertefeuille says this is where technology helps. The CDC uses satellites to see where people have moved and what areas are abandoned. Clues are where structures have been repaired, where the grass grows on roads, indicating abandoned areas, and where it doesn't, indicating where people are living.

Dr Andrew Etsana from the International Federation of Red Cross and Red Crescent Societies said these groups present a particular challenge because *"you have people moving with a virus and it is difficult to track them and vaccinate the vulnerable children in this mobile population."*

Another issue is the nature of viruses themselves. Viruses mutate. So far, the polio vaccines have been effective, but if not enough children get vaccinated, the virus can change, and perhaps make the vaccine less effective. That's why every child needs to be vaccinated.

Outbreaks can be avoided by vaccinating the whole population so that there are no gaps for the mutated virus to slip through. International experts are working with local leaders to close this gap.

Another issue is complacency. Etsana said, *"People are getting tired. The program has been going on. They thought it would have ended."*

Rotary has pledged to continue its support, other groups as well. International support and funding is critical to ending polio, but after three decades, many people have never seen polio. Etsana says he sees complacency creeping into all areas of the program. *"The funders of the program are also getting tired. The fund is drying up and if the fund dries up and the job is not done, we're going to have a major problem. We may have reinfection."*

But, if people recognize the program's value—it has united communities, established vaccine centers, created partnerships never before imagined—the world can not only end polio, but tackle other diseases as well. The polio program is widely credited with stopping the spread of Ebola in Nigeria while the disease ravaged other west African countries. ●

Polio This Week

Source: [Polio Global Eradication Initiative](#) — as of Wednesday 23 August 2018

Take a look at how the Papua New Guinea Government, the World Health Organization, and partners of the Global Polio Eradication Initiative are [responding](#) to the country's recent outbreak of circulating vaccine-derived poliovirus.

Pictured: At Malahang health clinic near Lae in Morobe Province, a health worker administers the oral polio vaccine (OPV) at a supplementary vaccination activity targeting children under five years. As part of the health ministry's response to Papua New Guinea's recent polio outbreak, four additional rounds of OPV vaccination are planned in Morobe, Madang and Eastern Highlands provinces.



Photo: Gavi/2018/Brendan Esposito

Wild poliovirus type 1 and Circulating vaccine-derived poliovirus cases

Total cases	Year-to-date 2018		Year-to-date 2017		Total in 2017	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Globally	14	25	9	41	22	96
—In Endemic Countries	14	5	9	0	22	0
—In Non-Endemic Countries	0	20	0	41	0	96

Case breakdown by country

Countries	Year-to-date 2018		Year-to-date 2017		Total in 2017		Onset of paralysis of most recent case	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Afghanistan	11	0	6	0	14	0	17 Jul 2018	N/A
Democratic Republic Of The Congo	0	11	0	8	0	22	N/A	24 Jun 2018
Nigeria	0	5	0	0	0	0	N/A	15 Jul 2018
Pakistan	3	0	3	0	8	0	18 May 2018	N/A
Papua New Guinea	0	4	0	0	0	0	N/A	8 Jul 2018
Somalia	0	5	0	0	0	0	N/A	26 May 2018
Syrian Arab Republic	0	0	0	33	0	74	N/A	21 Sep 2017