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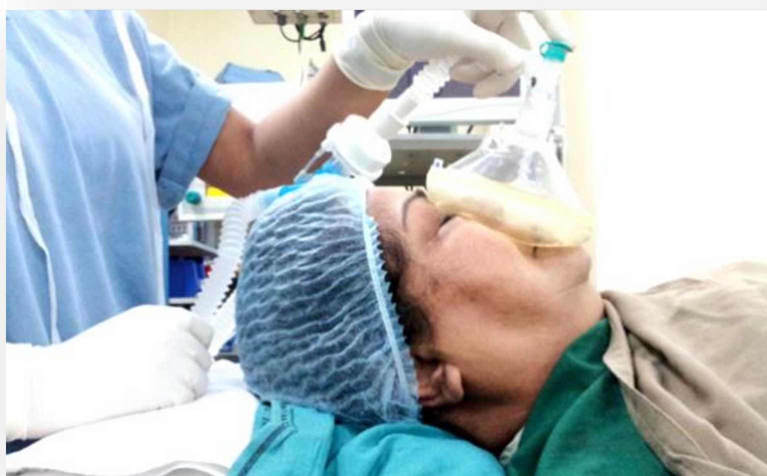
Polio Oz News

March 2016—Autumn Edition

A Taste Of Things To Come

The following abstract is one of a selection of presentations in this edition which make up the Program for the *Australasia-Pacific Post-Polio Conference — Polio: Life Stage Matters* from 20-22 September in Sydney. Check the website for all details: www.postpolioconference.org.au, including a 'Call for Abstracts' which closes 31st March.



Anaesthesia for the post-polio patient

Dr Christine Ball
Specialist anaesthetist
Department of Anaesthesia and Perioperative Medicine
Alfred Hospital, Melbourne, Victoria, Australia

The patient preparing for a surgical procedure is embarking on a journey, one which will include a large team of people, all focused on the same goal – the complication-free recovery of the patient. The anaesthetist's role is this team is often poorly understood, both by patients and by other health professionals. Not only will the anaesthetist provide a painless route through the surgery itself, but they will also be an important contributor to the optimisation of the patient's health – preoperatively, intraoperatively and postoperatively.

For the post-polio patient, communication with the anaesthetist preoperatively is essential. Apart from a general medical and surgical history, the anaesthetist will require specific information about neurological and muscle health, fatigue, sleep disordered breathing, ventilatory requirements and chronic pain issues. They will also perform a focused examination looking particularly at the respiratory system, musculoskeletal deformities and the airway. This interview is an important place for the patient to ask questions and have their particular concerns raised and addressed.

The anaesthetist will also communicate with any other health professionals involved in the patient's care. From them they will obtain recent test results, such as respiratory function tests, sleep studies and cardiac echocardiograms, an overall medical history and an understanding of the patient's ongoing treatment plans. Then together they can plan the best possible approach for the particular patient and the most appropriate postoperative monitoring, respiratory care, pain management and rehabilitation.

This presentation will explain the issues presented to the anaesthetist when managing the post-polio patient. Given the diversity of the audience, hopefully this will then facilitate improved communication between anaesthetists, patients and the rest of the medical and allied health professional team. The ultimate goal of this talk is improved patient-centred care, allowing each individual patient to feel that their needs are recognised, acknowledged and appropriately managed.

2016 Australasia-Pacific Post-Polio Conference
Polio - Life Stage Matters
20-22 SEPT 2016
FOUR SEASONS HOTEL SYDNEY
SAVE THE DATE
Register Now

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Representing polio survivors throughout Australia

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From the President

Dr John Tierney
President

At Polio Australia we were saddened to learn of the passing of one of our great benefactors, Lisa Cameron. Lisa contracted Polio in 1929 aged three and lived to 89. Both Gillian Thomas and I represented Polio Australia at her funeral recently. You can read more about Lisa's contribution to Polio Australia's work on page 6.

Polio Australia is now half way through the running a pilot series of Clinical Practice Workshops for health professionals in the northern Sydney region. This is due to the generous support of Rotary District 9685 which has provided $20,000 dollars in funding and is assisting with resourcing the workshops. These Workshops continue to be very well received by the participating health professionals, who have provided very positive feedback. Read more on page 4.

Polio Australia Board Fundraising and Rotary Club Liaison Director, Sue Mackenzie (Queensland) is off to a flying start and is already arranging several fundraising events in 2016. Sue is also managing our Rotary Club Speaker's Program comprising 22 volunteers, and has provided them with advice and resources. If you would like to join our panel of Rotary Club Speakers, and receive our Speaker's package, just contact Mary-ann at Polio Australia.

I would also like to acknowledge and thank Fran Henke for her media activities on our behalf during her brief time on the Board as an Independent Director for Communications and Media Relations. Fran's resignation letter stated that *"While polio might have taken away some aspects of life, it gave me a love of reading, writing, making books and painting. I wish to focus on writing fiction, which takes total concentration, and to enjoy life with my husband Ian."* We certainly wish Fran well in her creative pursuits, some of which can be seen on her website.

Polio Australia's three day Australasia–Pacific Post-Polio Conference being held from 20-22 September 2016 in Sydney, has just reached a significant milestone with the 100th delegate registration. If you plan to go to this highly informative Conference about the Late Effects of Polio, please register soon. Apart from educating health professionals, we want as many polio survivors as possible to benefit from this life changing event.

As you are all very well aware, Polio Australia receives not one cent in government funding for the great work that we all do on behalf of Australia's 400,000 polio survivors. We are increasingly dependent on private donations. Recently we have turned our attention to Bequests. In January, Mary-ann and I had dinner with John Jeffreys OAM, former National Director of CBM Australia and Founding Board member of Vision 2020 Australia. During his 33 years with CBM, John was a very successful fundraiser, particularly in the area of Bequests. John has been providing Polio Australia with advice on how to go about our own effective Bequests Program. We have now received private donations to cover the cost of a part-time Bequests Officer to advance this fundraising initiative.

So, when people update their Will, we would like them to consider supporting the work of Polio Australia with a Bequest. For example, my Will states that my inherited Commonwealth Bank shares be passed onto Polio Australia for the support of polio survivors. Perhaps you could too? More information can be found on page 5.

John

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From the Editor

Mary-ann Liethof
Editor

Welcome to the first edition of Polio Oz News for 2016. This promises to be an exciting and productive year for Polio Australia.

In *"A Taste Of Things To Come"*, I have featured four abstracts randomly selected from dozens we have received for the Australasia-Pacific Post-Polio Conference being held in Sydney in September this year. This will truly be a Post-Polio Conference like no other. We are incredibly fortunate to have secured a veritable 'Who's Who' of post-polio experts from around Australia, Europe, the USA, and other parts of the world, to present at this Conference.

Who should attend, I hear you ask? This unique Conference aims to provide a broad range of health professionals with gold standard diagnosis, treatment, and management strategies to provide the best care possible for post-polio patients. Having said that, polio survivors, their family/carers/friends will also gain unprecedented access to information to assist them with self-management techniques. In short, there is something for everyone! *DON'T MISS OUT* on this not-likely-to-be-repeated education opportunity. Register now!

While John remembers Lisa Cameron, another sad farewell goes out to Dennis Lloyd, Chair of the Mornington Peninsula Post-Polio Support Group in Victoria. Dennis certainly featured during my time with Polio Network Victoria. He had that quintessential determination which enables polio survivors to achieve great things, in spite of a myriad hurdles. He is remembered by Fran Henke on page 8.

The update on the Polio Australia and Rotary District 9685's Pilot Post-Polio Clinical Practice Workshop Series can be found on page 4. The most recent North Rocks Workshop held on 10th March, takes the numbers of health professionals upskilling themselves to approx. 80, which will be a fantastic boon for their post-polio patients.

Personally, I love a good piece of sculpture, so I was delighted to find an article on *"The Spanner Man"*—see *"Post-Polio In The News"* on p9. This is the amazing story of John Piccoli from rural Victoria, who is producing huge sculptures out of spanners, of all things! Make sure to watch the video link to see how he has geared up his workshop to move things around. We see the word 'inspirational' a lot these days, but John is the 'real deal' in my book.

I have also included a few clinical studies I've found which should be of interest to many, especially if taking bisphosphonates for osteoporosis, paracetamol for hip osteoarthritis pain, or are looking to shed a few kilo's. (Aren't we all?)

This is, of course, all topped off with information on the Polio Eradication campaign.

I hope you enjoy these offerings.

Mary-ann

Blessings In Disguise

"I'm a polio survivor (now 82), after contracting polio at age 17 at Geraldton in 1951. Both my legs are still paralysed. I used crutches for 53 years and for the past 12 years or so I've used an electric wheelchair.

I've written a short booklet titled "Blessings in Disguise". *It gets this name from the quotation by Oscar Wilde:* "What seems to us as bitter trials are often blessings in disguise."

It outlines that, until five years ago, I regarded my disability (a "bitter trial") with feelings of bitterness and regret, resulting in regular bouts of depression. However, after a Big Picture viewpoint of my life in 2011, I suddenly realised that polio was indeed a blessing in disguise for me.

For any polios who are still suffering depression through their disability, I am prepared to email my story to them."

Click on Kevin Lehane to send him an email.

Thanks Peter!

Polio Australia and Polio NSW pro-bono auditor Peter Roebuck retired in 2015. Gillian Thomas recently presented Peter with a plaque in grateful acknowledgement and recognition of his valued assistance to the polio community over 24 years.

LEoP Clinical Practice Workshop Series Update

- Earn 2.5 CPD hours
- Receive a Certificate of Attendance
- Free PDF of 100 page resource "Managing Muscles and Mobility", and more . . .
- Refreshments provided

The Late Effects of Polio

FREE Clinical Practice Workshop Series

POLIO: IT'S NOT OVER
Decades after the poliomyelitis epidemics in Australia, the aftermath of the disease is now becoming evident in our ageing 'polio population'. An estimated 400,000 people may be suffering the Late Effects of Polio (LEoP) or Post-Polio Syndrome (PPS). Do you know how to recognise these conditions in your practice?

CHRONIC ILLNESS WITH A DIFFERENCE
There are many cross-overs in the treatment and management of other chronic diseases and LEoP/PPS, and there are also some very significant differences. If LEoP is not identified, the client can experience rapidly worsening symptoms due to inadvertently incorrect care.

YOU CAN IMPROVE THEIR FUTURE
For many LEoP/PPS clients, biomedical and pharmaceutical treatments have limited efficacy. Polio survivors are turning their attention and hopes to allied health practitioners to help them improve their quality of life, and prolong their daily functional ability as they age. With a holistic approach to care and increased awareness within the greater health sector, LEoP/PPS clients can manage their symptoms, live better, and age well.

Registration: www.poliohealth.org.au/workshops
Email: workshops@poliohealth.org.au

Rotary District 9685 partnering with Polio Australia to deliver

3 hour Workshop Topics

- ☐ **Why We Vaccinate:** a brief history of polio in Australia
- ☐ **What is polio?:** The pathophysiology of poliomyelitis
- ☐ **Demystifying Late Effects of Polio and Post-Polio Syndrome:** what's the difference?
- ☐ **The Aging Polio Population:** joining the dots of problems experienced in LEoP / PPS clients
- ☐ **"Did You Have Polio?":** identifying people who may be experiencing LEoP / PPS
- ☐ **Practical strategies** used by physiotherapists, orthotists, and various other allied health professionals to address key concerns such as managing pain and fatigue, and help with stability and avoiding falls
- ☐ **A Late Effects of Polio Case Study:** Q&A with local polio survivors and team care simulation

WORKSHOP SERIES

#	Venue	Date / Time
1	**Ryde** Royal Rehab 235 Morrison Rd	Thursday 26 November 2015 1.00 – 4.00pm
2	**St Leonards** ARC Health 3/41 Herbert St	Tuesday 8 December 2015 5.30 – 8.30pm
3	**Katoomba** Blue Mountains District ANZAC Memorial Hospital Great Western Hwy & Woodlands Rd	Saturday 6 February 2016 9.30am - 12.30pm
4	**Wyong** Wyong Golf Course 319 Pacific Hwy	Saturday 27 February 2016 9.30am - 12.30pm
5	**North Rocks** Forsight Foundation 241 North Rocks Rd	Thursday 10 March 2016 9.30am - 12.30pm
6	**Penrith** Penrith RSL Club 8 Tindale St	Thursday 24 March 2016 1.00 – 4.00pm
7	**Hornsby** Mt Wilga Private Hospital 66 Rosamond St	Thursday 7 April 2016 1.00 – 4.00pm
8	**Windsor** Hawkesbury District Hospital 2 Day St	Saturday 16 April 2016 9.30am - 12.30pm
9	**Gosford** Conference Centre Gosford Hospital Holden St	Thursday 28 April 2016 1.00 – 4.00pm
10	**Narrabeen** The Tramshed Hall 1395a Pittwater Rd	Thursday 5 May 2016 1.00 – 4.00pm

Three Clinical Practice Workshops on the Late Effects of Polio have now been run in Ryde, St Leonards, and Katoomba, NSW. Fifty health professionals comprising GPs, physiotherapists, occupational therapists, exercise physiologists, nurses, orthotists, podiatrists, and others have participated to date, and word is spreading.

Although a couple of the 10 scheduled Workshops were undersubscribed and subsequently rescheduled (Narrabeen) or cancelled (Wyong), the forthcoming sessions being held in North Rocks, Hornsby, and Gosford are filling fast. Penrith, Windsor, and Narrabeen still have ample places available for health professionals.

This pilot Workshop series is a joint project between Polio Australia and Rotary District 9685, and facilitated by ARC Health's Principal and Neurophysiotherapist, Melissa McConaghy. Melissa is also a member of Polio Australia's Clinical Advisory Group.

When asked what they would do/ change as a result of having attended the Workshop, delegates' feedback included the following comments:

- Provide copies of slides to medicos unable to attend.
- Provide in-service to physio staff.
- Ask patients specifically about their polio history.
- Look up further information.
- Be more aware and read up the literature.
- Be aware who I put on a treadmill.
- Attend Sydney Conference in September.
- Share information with Colleagues.

This is definitely a fantastic outcome for their post-polio patients!

To find out more about this Clinical Practice Workshop series, and to access a vast range of additional resources for health professionals, go to Polio Australia's 'Polio Health' website: www.poliohealth.org.au.

L-R: Melissa McConaghy, Merle Thompson, Rotary Members John Isbister and Michael Small

Supporting Polio Australia

Polio Australia would like to thank the following individuals and organisations for their generous support from 1 December to 29 January 2016:

Hall of Fame

Name	Donation
Dr John & Pam Tierney	$2,000
Lisa Cameron	$15,000
	Total—$17,000

General Donations

Names				
Anonymous	Jill Burn	Brett Howard	Hylton Gardiner	Liz Telford
Mount Evelyn Community House Stitch and Craft Group				
Total—$580				

Bequest Program

Polio: It's Not Over

Decades after the poliomyelitis epidemics in Australia, the aftermath of the disease is now evident in our ageing post-polio population. Up to 400,000 people may now be suffering with the Late Effects of Polio or Post-Polio Syndrome, with many unable to find health practitioners with knowledge of how to diagnose or manage the condition.

By leaving a Bequest to Polio Australia, after providing for family and loved ones, your support will continue to help raise awareness of the Late Effects of Polio and provide training and resources for both polio survivors and the health professionals who dedicate their lives to caring for people and managing their chronic health needs.

As we receive no government funding, we rely on Bequests and Donations to ensure people living with the Late Effects of Polio have access to appropriate health care and the support required to maintain independence and make informed choices.

So whether large or small, your Bequest will be valued greatly, because it will change the life of a person who is ageing with the chronic and often debilitating symptoms associated with the Late Effects of Polio. You will also be helping to educate health practitioners in this little understood condition.

Click on the photo to link to the brochure or contact Polio Australia for details: 03 9016 7678.

***Did you know** that three out of four Australians support charities throughout their lifetime, but only 7% of Australians include gifts to their favourite charities in their Will?*

Vale Lisa Cameron: Benefactor of Polio Survivors

At Polio Australia we were saddened to learn of the passing of one of our great benefactors, Lisa Cameron—1926-2016. Lisa had a true Scottish heritage. In the 1830's, two Cameron brothers left Aberdeen in the Scottish Highlands to seek a new life in Australia. On board their ship they met two Campbell sisters and both couples were married when they landed in Sydney town.

The family moved to the New England area, where they lived and prospered for generations. Both Lisa and her brother attended private schools in Armidale and Lisa became a significant benefactor of both schools. This included the funding of scholarships for children whose families could not afford such an education. The esteem in which Lisa was held at the schools was marked by the attendance at her funeral of a principal and a senior executive from both schools.

Lisa contracted polio in 1929 aged three and lived to 89. Both Gillian Thomas and I represented Polio Australia at her funeral recently. We both first met Lisa over two years ago when she invited Gillian and I out to one of her famous morning teas at her home on Sydney Harbour. There she presented us with a cheque for $30,000 dollars for the support of polio survivors.

You would not have heard of Lisa, because she insisted that her funding of vital Polio Australia programs be anonymous. I now have permission to reveal that over the last two years she has donated over $60,000 dollars to our cause. One of the very significant projects funded completely by Lisa was our world's best practice *"Muscles and Mobility"* resource for health professionals.

The following statement was read out at Lisa's funeral on behalf of Polio Australia:

"Lisa was a great lady whom we held in high esteem at Polio Australia and we have fond memories of the times that we spent with her. The 400,000 polio survivors in Australia and we as their advocates are so grateful for Lisa's generosity to our cause over the years. In particular, her funding of resources that have been of great assistance to Australia's polio survivors with the management of their condition. It is a lasting legacy that we will always cherish."

Jan Williams Speaks To Rotarians

Some of you will recall reading about Sue Mackenzie's fundraising success a couple of years ago through Rotary Club talks in Far North Queensland and, more recently, with her Fashion Fiesta fundraising event in Brisbane. Sue is now co-ordinating an Australia-wide project for Polio Australia by mentoring and encouraging interested polio survivors to speak at as many Rotary Clubs as possible, with the aim of sparking their interest in financially supporting Polio Australia's work. I have joined Sue in this quest, and on Tuesday 1st March, I attended a meeting of the Rotary Club of Albany Creek, Queensland, as guest speaker on behalf of Polio Australia.

The 15 minute presentation covered Rotary's involvement with polio in Australia, as far back as the 1920's, their ongoing involvement in assisting in the endeavours for the eradication of polio world-wide through vaccination programs, and informing them of the current and very real situation in regard to the Late Effects of Polio.

My presentation was enthusiastically received by the members of the club, and an animated 15 minute question time ensued. Club President, Ken Weston and President Elect Cherryl McNaught *(pictured to my right)*, advised that their Club would like to be actively involved in assisting and will be in touch following their next Board Meeting.

I have made contact with 9 other Rotary Clubs and am hoping to get the opportunity to address their members in the near future.

A Taste Of Things To Come *(cont'd from p1)*

Sleep Hygiene – sleep as a trained behavior. How to improve duration and quality of sleep to improve health and wellness.

William M. DeMayo, M.D.
Physician
Physical Medicine & Rehabilitation
Summit Medical Rehabilitation
Pennsylvania, USA

By anyone's standard, the average person today has more "busyness" and less sleep than any time in history. Sleep often becomes a casualty of today's digital technology and media. Most individuals view sleep as a passive state ("falling asleep") rather than an activity ("going to sleep").

Instead of setting a healthy goal of 8 hours or more of sleep, many individuals set a target for sleep just above the point where they can not function well the next day. Unfortunately this does not account for the fact that effects of sleep deprivation usually occur over time. Additionally, quality of sleep is often poor due to the effects of stress on reducing percentage of deep sleep so that many individuals have reduction in both quantity and quality of sleep. Results can include chronic fatigue, poor productivity, irritability, weight gain, and exacerbation of painful conditions.

In this session we will discuss the topic of Sleep Hygiene – habits that can help anyone take control of their sleep patterns and quality of their sleep. We will look at sleep as a trained behavior.

While other circumstances such as pain, children/environment, and medications can all impair sleep, we will focus on the behavioral aspects of sleep that are most under the control of the individual and usually are the limiting factor in obtaining restful sleep over time.

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PLUG INTO LIFE

Post-Polio In The News

Polio: forgotten but not gone

By Amanda Smith

Source: The Body Sphere (RN) —17 February 2016

Polio isn't yet eradicated from the world; it still exists in Pakistan and Afghanistan. Additionally, many Australians who contracted the disease as children are now experiencing a recurrence of symptoms. ***Amanda Smith*** *reports.*

If you were a child in the first half of the 20th century, you were at real risk of getting polio. As with other waves of infectious diseases—HIV, Ebola and now Zika—there was no cure, no vaccine.

"Parents were really terrified for their children", says medical historian Kerry Highley. *"Nobody could tell them how to protect their kids"*.

Polio seemed to strike at random, without warning. *"One day they'd have a healthy and happy child running around with their friends and the next day that same child could be lying feverish and sobbing with pain and paralysed"*.

It wasn't until the 1950s that polio and its transmission as a virus — via person-to-person

Gillian Thomas (centre) and family

contact through faecal material — started to be properly understood. In her book *Dancing In My Dreams*, Highley researched the (often bizarre) theories behind the cause of the disease. These included sharks, soft drinks, summer fruits, plant pollen and feather pillows.

"Some believed that sunstroke was the cause and others believed that it was domestic animals like dogs or cats", she says.

"There were some people who believed that if you handled money in a till or spoke on the public telephone that you'd definitely catch polio".

The breakthrough came with the development of vaccines. In Australia, mass polio immunisation began in 1956 with the Salk vaccine, although this was too late for the tens of thousands of children who already had the disease.

Read or listen to the full interview via podcast here. Interviewed are: Kerry Highley, author of *"Dancing In My Dreams: Confronting the spectre of polio"*; Dr John Tierney, President of Polio Australia; Gillian Thomas, President of Polio NSW; and Billie Thow, Tasmanian Polio Australia Board member.

Note: *Kerry Highley* (pictured) *will be giving the Closing Plenary at the Australasia-Pacific Post-Polio Conference in September.*

Vale Dennis Lloyd

Our friend and Mornington Peninsula PPSG chair, Dennis Lloyd, died this morning (29/02/16). His wife Deirdre said he had been unwell over the weekend but fell in the bathroom this morning. Ambulance officers were unable to revive him. He was 83.

Dennis and Deirdre have been at the helm of our group for 20 years this year. Whenever anyone one of us was in hospital or in difficulties they have been the first on the phone with offers of help.

Dennis had polio during the war in the UK and worked in the printing industry most of his life, forced to retire when PPS kicked in.

He loved gardening but in recent years found it too hard on their steep block, even with the help of his scooter. He and Deirdre also loved extremely big dogs, owning a Pyrenean and more recently a Saluki.

We all will miss Dennis so much. He exemplified the dogged determination common to polios to continue doing what he wanted to despite being in acute pain. He has kept the group going in the way that suited us — informally, friendly but informative; producing the monthly newsletter with local and overseas polio news — not forgetting his sense of humour with the 'blue section' and the 'lavish' morning teas that feed our chat.

Post-Polio In The News *(cont'd)*

The Spanner Man: Meet one of the world's most unusual artists

By Emily Stewart

Source: ABC 7.30—14 January 2016

Three hours out of Melbourne, in the small farming community of Boort, is one of the world's most unusual artists. John Piccoli welds giant sculptures out of spanners — earning him the nickname the Spanner Man. His garden is littered with dozens of larger-than-life sculptures of mermaids, marlin, and even a full horse and wagon.

It all started when he leased out his mixed grain and stock farm after running it for three decades, from his wheelchair. *"I got polio in 1949. So I have grown up with having the disability that I have got"*, Mr Piccoli said. *"Once I leased the farm there was nothing really left to do, so something had to fill the void. And because these spanners happened to be in boxes in the sheds I thought I'll start by making them into something and it grew from that".*

His wife Sonia said he started making furniture and soon moved on to large artwork.

"He came to me and said, 'Oh come and see what I've been doing in the workshop'", she said. *"I go to the workshop and he'd made a beautiful coffee table out of the spanners".*

John uses blocks and tackles in the workshop to move the heavy sculptures around.

He buys most of the spanners at swap meets around Victoria or by the 1,000 in batches from his local hardware store.

He has created more than a 100 sculptures — using more than a 100,000 spanners so far. John does not use plans or drawings and works only from memory. He said he had not made a mistake yet.

At around $2 a spanner, John had to find a way to fund his sculpting, so he started letting visitors come through. With just 700 residents in Boort, the thousands of visitors who come to see John's work and then shop, eat and stay in town are providing a big boost for local business.

Boort Tourism Committee's, Paul Haw, has known John since school days and spent two years convincing him to let visitors come through. *"I think the first year he had 700 people — it doubled every year, and now I think it's getting close to 10,000 people a year"*, Mr Haw said.

Luckily for Boort, John has no plans to stop sculpting. *"The plan is I will weld up until the day I die, that's the plan,"* he said. *"I don't intend to waste away in a nursing home for the last 10 years of my life. I'd love to die in the workshop while I am welding. That would be the ultimate".*

Visit John's garden here. Read full article here.

Post-Polio In The News *(cont'd)*

'The most feared disease of childhood and adolescence' and 'a deafening silence': Polio and post-polio in Australia

By Frank B. (Ben) Tipton
The University of Sydney

This is an excerpt of an article which was first published in the *Australian Review of Public Affairs* (www.australianreview.net) on 15 February 2016 and is reprinted with permission.

POLIO MEMORIES

'Uh, sorry, but what did you do to your leg?'

'Oh. Well, I had polio when I was a kid, and now, well, it sort of comes back to bite you, later.'

'Polio? What's that?'

'Oh. Well, it's a virus, attacks the nerve ends in the spine, so you can't use the muscles, and you get paralysed. You recover, some, but then, later, it sort of comes back, like I said, again. But you, you're only, what, in your thirties? So you wouldn't ever have had to worry about it, you'll have been vaccinated, like everyone.'

'Uh, um, well, yah, no, I guess. Still, I mean, for you, that's a bit stiff, you know?'

That conversation, in the physiotherapy rooms of a rehabilitation hospital in Sydney in 2006, left me bemused. My well-meaning fellow outpatient, then 42 was born very shortly after the last reported case of 'wild' polio infection in Australia. He had been struck by a car turning illegally against a red light as he crossed a road in the crosswalk, and both knees had needed surgical reconstruction. Under instructions from his neurologist, the physiotherapists assigned him a program including time on an exercise bike and treadmill, workouts with a Swiss ball and leg lifts, all intended to strengthen his legs. I had been struck by polio in 1954, but after a long period of stability I had experienced increased difficulty walking and climbing stairs. Under instructions from my neurologist, the physiotherapists assigned me a program including time on an exercise bike and treadmill, workouts with a Swiss ball and leg lifts, all intended to strengthen my legs. To be honest I thought being blindsided in a crosswalk was a bit stiff, but I felt my own situation was a bit stiff as well, as I found myself repeating a process I had worked through 50 years before. Suddenly those 50 years seemed to weigh more heavily, with the realisation that awareness of the disease that touched so many of us had been so completely effaced for the next generation.

So I am intrigued to find three recent works that feature that old disease here in Australia, a history, a novel and an account of a broken family, all of them highly readable and rewarding. In *Dancing in My Dreams: Confronting the Spectre of Polio*, historian Kerry Highley aims to redress the 'scant attention' paid by social historians to what was once 'the most feared disease of childhood and adolescence' (p. 1). She begins with the first epidemic outbreaks in the early 20th century, but concentrates on the conflict over treatment in the 1920s and 1930s and on the research of the 1940s that led to the vaccines and the 'victory' over polio in the early 1960s. Very critical of contemporaneous medical and government leaders, she is quite willing to draw equally negative parallels with their descendants today. In *The Golden Age*, novelist Joan London takes an actual historical setting, a pub of that name in suburban Perth re-purposed in the early 1950s as a polio rehabilitation facility for children and the collected memoirs of its former patients, and uses them as an exotic backdrop for an imagined adolescent love affair. In *Boy, Lost: A Family Memoir*, journalist Kristina Olsson investigates her family history, a story that revolves around her missing half-brother, Peter. Taken from their mother by his violent father in 1950 when she makes her escape, Peter falls victim to polio as a young child, must cope with both the disease and ongoing abuse by his father, and finally locates the mother and her new family over 30 years later. In three very different genres, the books are closely connected by a shared theme: the impact of those now forgotten polio epidemics.

Extremely contagious and potentially fatal, polio reaped an annual harvest from the late 19th through the middle of the 20th centuries, with increasing peaks in Australia particularly in the years of the First World War (436 reported cases in 1916), the late 1930s (2,590 cases in 1938) and the early 1950s (4,940 cases in 1951) (Highley, Table 2, pp. 179–180). As such it posed extremely difficult problems for those charged with treatment of the victims. The next sections outline the features of the disease, its onset and spread and the conflict over early treatment. This leads to the process of recovery, rehabilitation and the psychological impact of the experiences of disease and survivorship. As the case of Olsson's half-brother shows, the story does not stop, and the final section looks at the long term effects of polio, commonly referred to as post-polio syndrome.

Read full article here.

Post-Polio In The News *(cont'd)*

Disabled passenger Anita Ghai says Air India made her 'crawl' on tarmac; airline denies claim

Source: www.abc.net/au/news—1 Feb 2016

Photo: Disabled rights activist, Anita Ghai (R)

A disabled passenger says she was forced to crawl on New Delhi airport's tarmac after Air India failed to provide a wheelchair when her plane landed, an allegation the carrier denies.

Anita Ghai, 53, a leading disability rights activist and academic, said she was left stranded after arriving in Delhi from the northern Indian city of Dehradun on Saturday evening.

After being helped down steps from the plane by airline staff and a friend, Ms Ghai said no wheelchair was available for her to reach the terminal-bound bus several metres away.

"We were kept waiting on the tarmac for half an hour before a passenger coach came to pick me up. I had to crawl on the tarmac to board the coach", Ms Ghai said.

"I kept on reminding the staff to arrange a wheelchair throughout the journey but to my shock when we landed there was none and all they said was there were 'security reasons'".

Ms Ghai, who is confined to a wheelchair after suffering polio as a child, described the incident as shocking and embarrassing.

Air India denied the incident, saying there was a delay in bringing the wheelchair because the plane was parked in an outlying bay.

"We strongly deny the statement ... We at Air India give utmost importance to passenger's safety and comfort", it said in a statement.

It is not the first time India's state carrier, which has not made a profit since 2007, has been in the news for the wrong reasons. Last month, a London-bound flight with more than 200 passengers was forced to return to Mumbai after three hours in the air over a suspected rat sighting in the cabin. A plane carrying 160 passengers was forced this month to return to Delhi almost 30 minutes into a Milan-bound flight after smoke was detected in the cabin.

Read full article here.

New BPF Post-Polio Syndrome Guide

The British Polio Fellowship has a new online resource: *"Post-Polio Syndrome a guide to management for health care professionals".*

Research conducted by The British Polio Fellowship in 2012 determined that only 55% of GPs were able to diagnose the symptoms and 18% of GPs did not know how to manage PPS when diagnosed. Independent research conducted in September 2015 by YouGov revealed that only 7% of the British public were aware of PPS.

The aim of this publication is to assist GPs and other clinicians in recognising and managing PPS. After several years of stability, individuals can develop increasing weakness, fatigue and pain in previously affected or unaffected muscles, a general reduction in stamina, breathing, sleeping and/or swallowing problems and cold intolerance. These symptoms may sound familiar and misdiagnosis is common as PPS is not recognised as a factor.

Post Polio Syndrome

A guide to management for health care professionals

Click on the picture to download your copy.

A Taste Of Things To Come *(cont'd from p1)*

The benefits and dangers of social media in the care, treatment and management of Post-Polio Syndrome - an observational study.

John R. McFarlane
President, European Polio Union

The phenomena of social media has caused an explosion of realisation of the problems being faced amongst world-wide communities of polio survivors, in particular those of the recognition of Post-Polio Syndrome. Facebook and Twitter, especially, have spawned a plethora of on-line support communities that concentrate on the problems, medical, social and economic, that affect the different and differing groups of polio survivors, their families, and carers.

Discussions range across many topics including life style choices and solutions, orthoses and their comparative use, comparisons of health systems as well as medical discussions where polio survivors discuss the merits, or otherwise, of medical practitioners, the lack of medical awareness in the medical community and in many cases on-line discussion of the particular polio survivor's problems in the care, treatment and management of Post-Polio Syndrome in the primary care environment.

This approach to peer support is having great benefits with this wide ranging information exchange often across continents but it has also highlighted many dangers and drawbacks whereby polio survivors demonstrate a trait to lay the blame for all complaints on Post-Polio Syndrome.

This study, drawn from observation and case study over a defined 12-month period covering peer support groups, moderated and un-moderated, based in Europe and the USA, will show how the use of social media (Facebook, Twitter etc.) can enhance the quality of life and independence of the polio survivor. How its use may be utilised by medical personnel from all disciplines regarding care, management and treatment; as well as how dangers of mis-information from any source, both accidental and intended, may be avoided.

It will also address the necessity for moderating peer support groups, reliance on single source authority and the growing problem of "devotees" gaining access to peer support groups and preying on polio survivors both financially, psychologically and sexually.

Register Now

Latest Disability Health Statistics

by Kymberly Martin

Source: Freedom2Live—29 February 2016

More Australians with severe disability report having poor health compared to those without disability. According to a new report from the Australian Institute of Health and Welfare (AIHW), more than half of Australians aged 15-64 with severe or profound disability rated their health as poor or fair, compared to 6 per cent of those without disability. This group were also twice as likely to smoke daily or start smoking before the age of 18 and had a higher prevalence of various long-term health conditions. Almost half reported doing no physical exercise and were 1.7 times as likely as those without disability to be obese.

As well, half of people under 65 with severe or profound disability had mental health conditions, compared with 8 per cent for those without disability, said AIHW spokesperson, Mark Cooper-Stanbury. Additionally, they were more likely to acquire a mental health condition before the age of 25. This group were also four times as likely to have arthritis and half acquired the condition before the age of 45, compared with 37 per cent for those without disability.

Asian Women and Bisphosphonates

Asian Women on Bisphosphonates at Higher Risk of Atypical Femur Fracture

By Anne Harding

Source: Reuters Health Information —29 January 2016

NEW YORK (Reuters Health) - Asian women are more than six times as likely as white women to sustain an atypical femur fracture while on bisphosphonate therapy, according to a newly published study.

"When counseling women regarding long-term treatment with bisphosphonate drugs, physicians should realize that risk benefit considerations differ not just by underlying fracture risk and length of treatment, but also by race", Dr Joan C Lo, a senior physician and research scientist at the Kaiser Permanente Northern California Division of Research and one of the study's authors, told Reuters Health by email. Dr Lo previously reported the findings of the study at the ASBMR meeting in October 2015, as reported by Medscape.

Atypical femur fracture (AFF) is a complete fracture in the mid to upper femur occurring with minimal trauma, and is a rare complication of bisphosphonate use. The mechanism behind the association between bisphosphonates and AFF is not clear, but both treatment duration and recent exposure to the drugs are associated with AFF risk, Dr Lo and her team note in their report, published online January 6 in Bone.

"However, the overall rare occurrence of AFF events among the vast numbers of women receiving oral bisphosphonate drugs each year indicates there may be additional contributing factors", they say.

Epidemiological studies have suggested that Asian women are at sharply higher risk of AFF when on bisphosphonate therapy. To better understand the risk, Dr Lo and her colleagues looked at 48,390 female Kaiser Permanente Northern California members 50 and older who started bisphosphonate therapy in 2002-2007 and were followed for at least three years. Nearly two-thirds of the women were white, and 17.1% were Asian. Most of the Asian women were of Chinese or Filipino ethnicity.

During follow-up, which lasted a median 7.7 years, 69 women sustained 73 AFFs. For non-Asian women, the incidence of AFF was 9 per 100,000 person-years of follow-up, versus 64.2 per 100,000 person-years for Asian women.

The median treatment time before AFF occurred was 5.5 years, and it was 5.7 years for white women, 5.4 for Asian women, and 5.1 for women of other ethnicities. All of the AFF cases occurred in women taking alendronate, and 92.9% were taking 10 mg/day.

"Asians have different bone structure (femur geometry and size) that may contribute to a higher risk of AFF in the setting of bisphosphonate use", Dr Lo said. *"Bisphosphonate drugs may also affect bone metabolism differently in Asians".*

"Bisphosphonate drugs are effective in preventing fractures and remain a first-line therapy for osteoporosis in women, including Asians. For women at high risk for fracture, the benefits of bisphosphonate treatment in the first five years far outweigh the very low risk of AFF", she added. *"However, the risk of AFF increases with bisphosphonate treatment duration, and is higher for women of Asian race. Therefore, physicians should carefully consider the risks and benefits of bisphosphonate treatment beyond five years, especially in Asians".*

Original Source: Bone 2016.

The ATSA Independent Living Expo on the **18 to 19 May 2016** at **Melbourne Showgrounds** will have over 100 exhibitors displaying a wide range of products and services in assistive technology, mobility solutions, pressure care, employment support, accessible recreation/ holiday ideas, modified motor vehicles and a lot more.

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Paracetamol Ineffective for Hip Osteoarthritis

Paracetamol Is Ineffective for Spinal Pain and Knee and Hip Osteoarthritis

By David Felson

Source: Medscape.com—Evid Based Med. 2015;20(6):205

Context

While paracetamol continues to be recommended as an initial pharmacological treatment for osteoarthritis and to a lesser extent for back pain, increasingly trials and meta-analyses have suggested that its efficacy is minimal and some epidemiological evidence suggests that at high doses, paracetamol may be dangerous. Machado and colleagues carried out the most comprehensive meta-analysis yet of the efficacy and safety of paracetamol versus placebo for back pain, neck pain and knee and hip osteoarthritis pain.

Methods

The authors carried out a comprehensive search for randomised trials comparing efficacy and safety of paracetamol versus placebo for the aforementioned conditions. They registered their meta-analysis following PRISMA guidelines. Articles had to report pain and/or functional outcomes. Risk of bias and publication bias were assessed. For each treatment arm in each trial, the authors converted pain and function outcomes to a 0–100 visual analogue-type scale and then computed the difference between these treatments on this scale.

Findings

The authors found 3 spinal pain trials and 10 trials of knee and/or hip osteoarthritis. For each of these disorders there was little heterogeneity across trial findings and the evidence was rated formally as of moderate to high quality. Paracetamol dosages in these trials were consistently over 3 g a day.

The authors found no effect of paracetamol on spinal pain in the immediate (<2 weeks) or short term (>2 weeks but <3 months) with placebo patients actually doing marginally better in terms of pain than acetaminophen patients (1.4 on a 0–100 scale (95% CI −1.3 to 4.1)). Effects were the same for function. For osteoarthritis there was a modest effect of paracetamol with little heterogeneity across trials. In the immediate term, the paracetamol patients on average had an improvement compared to placebo of 3.3 on a 0–100 scale with the 95% confidence bound not extending up to the minimal clinically important difference for pain of 9 per 100. For short term, the effect was almost identical with the upper bound of the effect not reaching the minimal clinically important difference. Paracetamol-treated patients had no increase in adverse events other than an increase in liver function tests of unclear clinical significance.

Commentary

This meta-analysis is the most comprehensive yet to evaluate the efficacy of paracetamol at a high dose and is consistent with earlier study findings. One systematic review (osteoarthritis) reported that the effect size for paracetamol versus placebo was <0.2 SDs versus placebo on a scale where 0.2–0.5 is characterised as a small therapeutic effect. Non-steroidal anti-inflammatory drugs at therapeutic doses have effect sizes of 0.3–0.5 using the same approach. This meta-analysis of short-term trial data did not include a comprehensive examination of toxicity which is better addressed in long-term observational studies.

Some data suggests that paracetamol at a high dose may inhibit cyclooxygenase, especially COX-2. Long-term observational cohort studies have reported that people who take paracetamol daily may be at an increased risk of incident hypertension, deterioration in renal function and even myocardial infarction. It should be noted that no such risks have been reported for people who use paracetamol intermittently or at a lower dose. Also, paracetamol at a high dose may cause a drop in haemoglobin level, suggesting that this cyclooxygenase inhibitor may cause gastrointestinal bleeding.

It is clear that high-dose paracetamol ultimately not only offers little in terms of efficacy but, at least at high dose, may have an unfavourable therapeutic to toxic index—this does not take into account the potential liver toxicity that might attend at higher dose use.

Implications for Practice

While intermittent paracetamol to relieve occasional pain is safe and may be marginally effective, high-dose paracetamol should probably be avoided given its limited efficacy and risk of toxicity. If occasional paracetamol is not effective, intermittent non-steroidal anti-inflammatory drugs or other pharmacological treatments should be considered. Furthermore, for osteoarthritis, exercise treatment has been shown to be efficacious, is safe and is underutilised.

Subscription (free) required to view article link:
www.medscape.com/viewarticle/855259

Which Fruits and Veggies Best Prevent Weight Gain?

By Veronica Hackethal, MD

Source: Medscape Medical News
—29 January 2016

Eating more foods high in certain flavonoids may help prevent weight gain over time for adults, according to findings from a study published online January 27 in the *BMJ*.

"We looked at seven different types of flavonoids, and we found that the classes that were associated with better weight maintenance were flavonol, anthocyanins, and flavonoid polymers", commented first author Monica Bertoia, MPH, PhD, research associate at the Harvard TH Chan School of Public Health, Boston, Massachusetts.

Fruits like apples, pears, and red berries represent the major sources of flavonoids, but they can also be found in some vegetables like red peppers, Dr Bertoia said.

Preventing a Bit of Weight Gain Is Important for Health

The study is the first to look at links between intake of various flavonoid subclasses and weight gain. It included data on over 124,000 women and men in the United States who were followed for up to 24 years.

Past studies have suggested that flavonoids may play a role in weight loss. Most have focused on the flavon-3-ol subclass found in green tea, though, and have had small sample sizes.

The new study drew on data from 124,086 women and men who participated in three prospective studies: the Nurses' Health Study (NHS), Nurses' Health Study II (NHSII), and the Health Professionals Follow-up Study (HPFS).

Participants were aged 27 to 65 and came from all 50 states of the United States; they self-reported their weight, lifestyle habits, and recent medical diagnoses every 2 years between 1986 and 2011. They also documented their diet every 4 years using validated semiquantitative food frequency questionnaires (FFQs).

Researchers looked at seven flavonoid subclasses: flavanones, anthocyanins, flavan-3-ols, proanthocyanidins, flavonoid polymers, flavonols, and flavones.

They adjusted the results for lifestyle factors linked to weight change, including physical activity, TV watching, and 17 dietary factors such as intake of sugar-sweetened drinks, fried foods, alcohol, caffeine, whole grains, and processed meats.

Results showed that over each 4-year period, women gained an average of 2.9 pounds (NHS) to 4.4 pounds (NHSII), and men gained an average of 2.2 pounds (HPFS).

Though small, even this amount of weight gain *"will really add up over the long term",* Dr Bertoia pointed out.

"Preventing just small amounts of weight gain or losing small amounts of weight can have an impact on your individual health and risk of cardiovascular disease, diabetes, and cancer", she said, adding, *"It can also have a really big impact on population health."*

Which Fruits and Vegetables to Target to Prevent Weight Gain

The findings — adjusted for lifestyle factors — suggested that people who ate more foods from specific flavonoid subclasses experienced less weight gain over time.

The following flavonoids had the greatest effect on weight loss: anthocyanins produced −0.23 lbs per additional standard deviation (SD)/day, flavonoid polymers −0.18 lbs per additional SD/day, and flavonols −0.16 lbs per additional SD/day.

Each increase in standard deviation of daily intake was linked to 0.16 to 0.23 fewer pounds (equivalent to 0.07-0.10 kg) gained over 4 years.

After fiber intake was accounted for, the findings remained significant for anthocyanins, proanthocyanidins, and total flavonoid polymers but lost significance for the other subclasses.

One serving per day of many fruits often provides many more flavonoids than one standard deviation, which may put these findings into perspective. For example, eating just a half cup of blueberries per day would increase consumption of anthocyanins by 12 standard deviations.

Foods high in anthocyanins include dark red fruits like blackberries, red grapes, raspberries, cherries, blueberries, and strawberries, with the

cont'd p16

Which Fruits and Veggies Best *(cont'd from p15)*

latter two fruits also high in flavonoid polymers, as are tea, pecans, and apples. Tea is also rich in flavonols, along with onions and some types of beans, Dr Bertoia pointed out.

The observational nature of the study limits conclusions about whether or not the findings are related to overall improvement in diet quality, to the flavonoids themselves, or to something else, according to Dr Bertoia. Other limitations include the use of a self-reported FFQ.

Nevertheless, this paper builds on prior research by this group and *"helps to refine the general advice that everyone should eat more fruits and vegetables. It helps give more information about which potential fruits and vegetables may be better choices to make more specific recommendations in future guidelines"*, Dr Bertoia said

In the United States currently, most people consume less than 1 cup of fruits, and less than 2 cups of vegetables daily. The authors suggest that this should be increased to 2 cups of fruits and 2.5 cups of vegetables.

BMJ. Published online January 27 2016. Article.

WHO Calls For Major Shift Toward Older People

By Miriam E. Tucker

Source: Medscape Medical News —1 October 2015

A new report from the World Health Organization (WHO) calls for a dramatic shift in the way governments, societies, and health systems think about and approach a rapidly growing older population.

Timed to coincide with the WHO International Day of Older Persons on October 1, the organization's *World Report on Ageing and Health* was released September 30, 2015, at a briefing held at the United Nations Foundation headquarters.

By 2050, the number of people who will be older than 60 years is set to double. *"Today, for the first time in history, most people can expect to live into their 60s and beyond. The consequences for health, health systems, for the work force, and for the budgets of countries are profound"*, WHO Director-General Margaret Chan, MD, said at the briefing.

The new report, she said, *"summarizes the opportunities that accompany population aging, and also the many barriers and knowledge gaps that block these opportunities. It is in our collective interest to work together to unblock these barriers"*.

Among the current impediments are a one-size-fits-all approach to older people despite their great diversity and the notion that older age always implies dependence and increased cost. *"There's a lot of misconception* [that] *chronological age is linked to functional disability. That's not the case"*, Dr Chan said.

John Beard, MD, director of the WHO's Department of Ageing and Life Course and a lead author of the report, told *Medscape Medical News*

that one of the report's implications for healthcare professionals is *"to step beyond the idea that healthy aging is the absence of disease and to realize that what's more important for an older person is their functional ability that comprises both themselves and the environment they live in"*.

Older people should be viewed holistically, Dr Beard said. *"Try and do some form of assessment as to how they're functioning and how all their different problems and challenges add up, and use that as a guide to [future action]"*, he advised, adding, *"Unfortunately, systems at the moment often tend to react to seeing older people as a bucket of individual diseases and respond to each disease as the presentation arises. I think the first thing we need to do is to move beyond that, to think in a holistic way"*.

Think "Investment" Rather Than "Cost"

The 245-page report defines *"healthy aging"* as *"the process of developing and maintaining the functional ability that enables well-being in older age"*.

cont'd p17

Major Shift Toward Older People *(cont'd from p16)*

To achieve that goal, detailed recommendations are provided for four *"priority areas for action":* Aligning health systems to the populations they now serve, developing improved systems of long-term care, creating age-friendly environments, and improving measurement and monitoring to ensure that the changes are having the intended beneficial effect.

The overall tone of the report is positive, asking that expenditures on older populations be viewed as *"investments"* rather than *"costs".* It notes that population aging may not be that expensive, as has been assumed, in part because aging per se has been shown to contribute far less to overall healthcare expenditures than have changes in healthcare-related technologies.

And in fact, the report says that in some high-income countries, healthcare expenditures per person fall significantly after the age of 75, whereas expenditures for long-term care rise.

Dr Beard said that increases in healthcare costs with age tend to be higher in the United States than in some other countries, such as the Netherlands, Japan, Korea, and Germany, where there are comprehensive systems for long-term care.

"I hope this report gets people to realize that older populations are a fantastic opportunity.... The shift from just seeing older populations as a burden on society I hope will be one major step. And then, looking to how we can across the life course do things to ensure that the well-being and the contribution of older people are maintained for as long as possible".

He added, *"That might cost a little bit — I don't think it will be nearly as costly as people think — but it's a good investment. And when you make a good investment, you get a return, in terms of the well-being of older people, their contribution to society, and social cohesion".*

Nanopatch Polio Vaccine Success

by Darius Koreis

Source: medicalxpress.com/
—26 February 2016

Needle-free Nanopatch technology developed at The University of Queensland has been used to successfully deliver an inactivated poliovirus vaccine.

The UQ research team - Ms Christiana Agyei, Dr David Muller, Professor Mark Kendall, Dr Germain Fernando and Mr Nick Owens.

Delivery of a polio vaccine with the Nanopatch was demonstrated by UQ's Professor Mark Kendall and his research team at UQ's Australian Institute for Bioengineering and Nanotechnology, in collaboration with the World Health Organisation, the US Centres for Disease Control and Prevention, and vaccine technology company Vaxxas.

Professor Kendall said the Nanopatch had been used to administer an inactivated Type 2 poliovirus vaccine in a rat model.

"We compared the Nanopatch to the traditional needle and syringe, and found that there is about a 40-fold improvement in delivered dose-sparing", Professor Kendall said.

"This means about 40 times less polio vaccine was needed in Nanopatch delivery to generate a functional immune response as the needle and syringe.

"To our knowledge, this is the highest level of dose-sparing observed for an inactivated polio vaccine in rats achieved by any type of delivery technology, so this is a key breakthrough".

The next step will be clinical testing.

Dr David Muller, first author of the research published in *Scientific Reports*, said the work demonstrated a key advantage of the Nanopatch.

"The Nanopatch targets the abundant immune cell populations in the skin's outer layers; rather than muscle, resulting in a more efficient vaccine delivery system", he said.

Clinical success and widespread use of the Nanopatch against polio could help in the current campaign to eradicate polio. It could be produced and distributed at a cheaper cost, and its ease of use would make it suitable for house-to-house vaccination efforts in endemic areas with only minimal training required.

cont'd p18

Nanopatch Polio Vaccine Success *(cont'd from p17)*

World Health Organisation Global Polio Eradication Initiative Director Mr Michel Zaffran said only Afghanistan and Pakistan remained polio-endemic, but all countries were at risk until the disease was eradicated everywhere.

"Needle-free microneedle patches such as the Nanopatch offer great promise for reaching more children with polio vaccine as well as other antigens such as measles vaccine, particularly in hard-to-reach areas or areas with inadequate healthcare infrastructure", Mr Zaffran said.

Nanopatch technology is being commercialised by Vaxxas Pty Ltd, which has scaled the Nanopatch from use in small models to prototypes for human use.

Vaxxas CEO Mr David Hoey said the first human vaccination studies are scheduled for this year.

"Key attributes of the Nanopatch, including its ease of use and potential to not require refrigeration, could improve the reach and efficiency of vaccination campaigns in difficult-to-reach locations, including those where polio remains endemic", Mr Hoey said.

More information: David A. Muller et al. Inactivated poliovirus type 2 vaccine delivered to rat skin via high density microprojection array elicits potent neutralising antibody responses, *Scientific Reports* (2016).
DOI: 10.1038/srep22094

Journal reference: Scientific Reports

Provided by: University of Queensland

WHO's New Director of Polio Eradication

Source: Rotary International
—21 January 2016

*In February, **Michel Zaffran** (pictured) will take over as director of polio eradication for the World Health Organization (WHO). Most recently, Zaffran has served as coordinator of WHO's Expanded Programme on Immunization. He has also served as Deputy Executive Secretary of the Global Alliance for Vaccines and Immunizations (GAVI), and represented WHO on the working group that designed and launched GAVI. We caught up with him recently to ask his thoughts about this new challenge:*

I am extremely excited, but also emotionally very moved, to have been selected for this position. I started working for the World Health Organization in September of 1987 in the immunization program. A few months later in May the World Health Assembly endorsed the resolution to actually eradicate polio. I was just at a very junior level but remember seeing my bosses work on the resolution, and so I was there from the very beginning. So to actually toward the end of my career be coming back and heading the program for its last miles basically is very exciting and very moving.

My past experience has prepared me very well for this role. I have been working with all of the key partners for many years. And as the WHO's director of polio eradication, I will need to interact closely with the various stakeholders and ensure their contributions remain well coordinated.

Over the past three years, specifically as part of the Polio Eradication End Game Strategic Plan, I was the chair of the Immunization Systems Management Group responsible for coordinating the efforts of partners to prepare for the withdrawal of type 2 oral polio vaccine (OPV) from 155 countries and for the introduction of the inactivated polio vaccine (IPV) into 126 countries. All of this work has been done very closely with Rotary, with the Center for Disease Control and Prevention (CDC), the Gates Foundation, and UNICEF.

We have celebrated some very good milestones recently, but now is not the time to give up.

So let me talk a little about this important step. As you know, the OPV is a very efficient and very effective vaccine. But in some rare cases, it can actually cause the disease from the attenuated (weakened) live virus it contains. It can even return to being virulent, circulate, and cause outbreaks.

There are three strains of the polio virus. Last year, the Polio Eradication Global Certification Committee certified that no natural cases of type 2 have occurred since 1999 and that the virus had been eradicated. From a public health perspective, it is no longer acceptable to be causing the disease with the weakened form of type 2 when it no longer exists in nature. So during a two week period at the end of April, all countries that are currently using OPV either in

cont'd p19

New Director of Polio Eradication *(cont'd from p18)*

routine programs or in campaigns — there are 155 such places — will switch from the trivalent OPV (which contains weakened forms of all three types) to a bivalent OPV (which only contains types 1 and 3).

At the same time, we are introducing the injectable inactivated polio virus vaccine (IPV), which contains all three types of the virus in a killed form, into routine immunization systems. This will ensure that people continue to have protection and immunity against type 2 in case an outbreak were to occur, either from vaccine not entirely removed or because of an accident at a laboratory or manufacturer.

What remains to be done

We have celebrated some very good milestones recently, but now is not the time to give up. The fact that we declared Nigeria no longer endemic, that cases are just restricted to Pakistan and Afghanistan, sends a signal — which of course is a very good signal — of positive results. But at the same time there is a danger it can obscure the fact that we need to continue for a period of time to have very good surveillance in Africa and continue immunizing children. There are countries in Africa that are at risk, should anything happen, like we have seen in the past where the virus is imported from endemic countries.

Rotarians who have been so engaged and active in helping the program so far cannot let go. They need to continue to support the program and not only in Pakistan and Afghanistan, but in Africa where we need to ensure that there are the right campaigns conducted with high quality. What Rotarians should do is to continue to advocate that the job is not done yet.

(Rotary) had the vision as early as 1979 that this should be done and you convinced the rest of the world to move ahead and do it.

When we stop transmission in Pakistan and Afghanistan, and even after we have certification of global eradication, we will need to maintain high quality surveillance to ensure the virus is contained and not released into the environment.

And we need to make an effort — and Rotarians can contribute to this substantially — that the lessons learned through the polio eradication initiative, that the laboratories that we have established, that the skills that we have developed, that the staff we have trained, are not lost to public health. But that they are transitioned to new public health challenges. This is the fantastic broader legacy of the program.

I would like to recognize the unique role that Rotary and Rotarians have played in this fantastic adventure. You had the vision as early as 1979 that this should be done and you convinced the rest of the world to move ahead and do it. You have been there at the very beginning; you have been there all along. Don't give up now, we are so close, we've got the end in sight.

Scientists Advocate Need For New, Safer Vaccines

By Ed Cara

Source: medicaldaily.com—31 December 2015

Scientists Advocate Need For New, Safer Polio Vaccines To Prevent Outbreaks After Its Eradication

The end of polio looms ever, if precariously, closer. But what will happen to its vaccine afterward? That's the broad question broached by a group of researchers, led by Dr. Phillip Minor of the UK's National Institute for Biological Standards and Control (NIBSC), this Thursday in PLOS Pathogens.

As they explain, the global health community is poised to remove the oral polio vaccine (OPV) off the market permanently once eradication is confirmed — in hopes of preventing the rare possibility of an outbreak emerging from the weakened but very much live strain of the poliovirus utilized in them. Because the OPV has been the primary tool in polio prevention, however, the world will need a standby vaccine to maintain immunity for the foreseeable future. And while the current leading strategy is to jumpstart mass-production of the inactivated polio vaccine (IPV), using either wild-type poliovirus or the weakened "Sabin" strain as its base, Minor and his colleagues strongly believe a third option should be chosen.

While the IPV is one of the safest vaccines around, incapable of inadvertently causing polio or triggering the rare side effect of paralysis associated with the OPV, there are drawbacks involved in its production — namely, that most IPV manufacturers use batches of wild-type poliovirus to make them. While these batches are safely killed off long before they reach a syringe, the possibility of a factory leak into a populated area is still present, if unlikely. The risk is so feared that the World Health Organization (WHO), through its 2015 Global Action Plan for polio eradication, recommended

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Need For New, Safer Vaccines *(cont'd from p19)*

that no factories producing the wild-type version of IPV be built in low-income countries where a polio outbreak could be transmitted easily.

An IPV version using the Sabin strains of polio, the same type found in the OPV, carries a similar, if smaller, risk of contamination — should the Sabin strain be let loose into the environment, there's the remote chance it can revert back into an infectious, disease-transmitting version and ignite a new outbreak.

To get around these potential dangers, Minor and his colleagues sought to create an alternative version of the Sabin strain, one less susceptible to mutation, by modifying its viral RNA. They then took their new creation through its paces, testing not only its genetic stability, but whether they could adequately match up to the competition in terms of effectiveness, paralysis risk, and cultivability. "We have developed new strains for IPV production with negligible risk to the human population should they escape," they concluded.

Noting that the WHO's Global Action Plan calls for the formulation of an expert panel to evaluate the safety of new "derivatives containing wild poliovirus capsid sequences" by comparing them to the Sabin strain in the wake of post-eradication, Minor and his team are hopeful their creation will fit that criteria.

Even should that happen, though, there are still stumbling blocks. According to a 2009 report from the Bill & Melinda Gates Foundation on the global IPV market post-eradication, the major manufacturers of the IPV have been adamant about their refusal to switch from using wild-type polioviruses to even the Sabin strain, citing their version's "proven track record of successful use." And while Minor's strain could be very useful in lower income countries that self-produce their polio vaccine, there's the question of whether it could be ready for production by the time post-eradication efforts begin to ramp up — provided it actually works. Not to be forgotten in all this are the higher costs and overall lower protection that come with any version of the IPV compared to the OPV, though research efforts are underway to solve these problems.

Still, the drive to create a safer polio vaccine is one worthy of encouragement. Here's hoping it succeeds.

Source: Minor P, et al. PLOS Pathogens. 2015.

We're So Close To Eradicating Polio!

by Jesslyn Shields

Source: How Stuff Works – 18 February 2016

We're So Close to Eradicating Polio! Here's Why The Last Few Hurdles Are Tricky.

Have you noticed that nobody you know has come down with polio recently? That's great for you *and* everybody you know! It hasn't always been the case, and it also wasn't an accident.

Epidemics of polio, or poliomyelitis, have plagued human populations since before we started writing stuff like that down. The virus can be spread through the consumption of unsanitary food or water, or by any of the classic poop-getting-in-mouth scenarios you can think of. It most commonly infects children. Though not often fatal, polio can make its way into the brain and spinal cord, causing permanent paralysis.

Polio was a terrifying threat in the early 20th century: It often left victims paralyzed or dead. Yet two vaccines caused an immediate drop in polio cases and today they've nearly eradicated the disease. But what exactly happened? Tune in to find out.

Thanks to the polio vaccine developed by Jonas Salk in the 1950's, in conjunction with extremely aggressive and well-organized vaccination campaigns, the last case of polio caused by the "wild," unmutated virus was reported in the United States in 1979. In 1988, polio was reported to have a firm foothold in 125 countries worldwide, infecting around 350,000 people. Since then, Europe was certified polio-free in 2002, and the last case of polio in Africa was reported in Nigeria in 2014. The remaining 72 individuals with the wild poliovirus live in Afghanistan and Pakistan.

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So Close To Eradicating Polio! *(cont'd from p20)*

According to a recent article published in the New England Journal of Medicine, in order to completely eradicate polio, and to ensure that the virus doesn't come back in a mutated form elsewhere, we're going to have to start using a different vaccine.

Because there's not just one strain of polio — there are three. All three of the viruses are contained in the vaccine we've been using all these years, but one of the strains — they call it type 2 — was eradicated back in 1999. The danger in continuing to use type 2 in the current vaccine is that it's possible, though rare, for the type 2 virus in the vaccine to give someone symptomatic polio, or vaccine-associated paralytic polio (VAPP). Even more alarming, but also more uncommon, is that the vaccine can infect someone with a mutated version of the type 2 poliovirus that is able to spread within a community in the form of circulating vaccine-derived polioviruses (cVDPVs). Which is singularly unhelpful if one's goal is eradicating polio.

The numbers of people infected with VAPP or cVDPVs is small — on the order of around 1600-3200 and 600 victims, respectively. However, it's much larger than the number of wild cases still in circulation. It turns out, *once a strain of a virus is eradicated, it's very important to stop using it in the vaccine,* to avoid situations like cVDPVs. So the next order of business is switching vaccines from the trivalent vaccine that contains all three strains of poliovirus, to the bivalent vaccine that contains only type 1 and type 3. This sounds easy, but it's not actually going to be all that easy.

"This is unprecedented", says Walter Orenstein, associate director of the Emory Vaccine Center and co-author of the recent article, via email. *"The big concern with the switch deals with the need to do it simultaneously, within a two week period.*

As it happens, vaccinating a population has to be a highly orchestrated affair: in high-risk countries where polio was eradicated fairly recently, the transition from the trivalent to bivalent vaccine needs to begin with every child getting the trivalent inactivated polio vaccine (IPV) for a little while longer, until there are no more reported cases of VAPP.

After that, every single country that has been using the trivalent vaccine has to destroy or safely contain them all at once, at which point they have to begin stockpiling and administering the bivalent vaccine.

The reason to stop in this coordinated fashion is if some countries continued to use type 2 containing oral vaccines, whereas others stopped using such vaccines, then the countries which have stopped could be at risk of getting seeded with type 2 vaccine viruses from the other countries. This could lead to generation of more cVDPV2s", says Orenstein.

In order for this switch to run smoothly, global health organizations, governments, vaccine manufacturers, and funders have to work together to make sure type 2 polio is contained, while preparing for another outbreak, just in case.

No Injectable Vaccine On The Market

Source: Times of India—2 March 2016

Lucknow: Acute shortage of injectable polio vaccine in the private sector is bothering paediatricians and urban parents in Uttar Pradesh. The crisis, believes All India Vaccine Dealers Association, has been triggered by bulk procurement by state government for the National Polio Immunisation Programme.

According to general secretary Sanjiv Pal Singh, *"Not a single vial of the injectable polio vaccine is available against demand for at least 30,000 vials as companies have diverted supply to state government".*

In November 2015, UP government integrated injectable polio vaccine in the national programme for elimination of polio. Under this, polio vaccine shots are given to newborn when they complete 14 weeks.

Principal secretary health Arvind Kumar said: *"We had no idea about the shortage or crisis. Now informed, we will urge parents to go to government hospitals which have enough stock. Additionally, government will meet representatives of the vaccine manufacturing companies soon to address the issue".*

Privately practising paediatrician Dr Sanjay Niranjan who has an average of administering some 50-60 injections every month said, *"Our stockist informed that he has zero stock".* Adding that many parents get worried and fear compromising with the oral polio vaccine.

"Injectable polio vaccine gives better protection. It is for this that global alliance for vaccine and immunisation recommends it", he said. The association office-bearers held that the crisis was equally grave in Kanpur, Ghaziabad, Noida, Varanasi and Gorakhpur.

Members of the Indian Paediatric Association have expressed concern stating that over 60% of urban children are immunised in the private sector and injectable polio vaccine was one important element.

The Tale Of The Pakistani Taliban Father

By Jeffrey Kluger

Source: Time.com—15 January 2016

Even though the Quetta attack showed the Taliban is still bent on disrupting Pakistan's attempts to eradicate polio, a one-on-one encounter proves instructive.

There's a special place in hell for the suicide bomber who killed 16 people at a polio vaccination center in Quetta, Pakistan on Jan. 13. There's a place too for the Pakistani Taliban spokesman who claimed credit for the attack—as well as for his whole blood-soaked organization.

The Taliban have been targeting polio workers for several years now, insisting that no children can be vaccinated until U.S. drone strikes in the country stop. They have also spread rumors that the vaccine contains HIV or is designed to sterilize Muslim girls, and that vaccinators are CIA spies in disguise — a fiction that gained currency after agents pulled just that masquerade while hunting for Osama bin Laden.

Still, after decades of work, victory might be at hand in the fight to eradicate polio. As recently as 1988, the disease was endemic in 125 countries and paralyzed or killed 350,000 children every year. By last year, polio was down to just two countries — Pakistan and Afghanistan — with a total of 70 cases between them.

Pakistan, which had 51 of those cases, is the center of the fight to bring the global case count down to zero. On Jan. 14, the country completed a National Immunization Day, distributing one dose of vaccine to each of the 35.5 million children under five in the country. A second dose will follow in March, and three regional immunization days in February, April and May aim to reach 5 million children each time. In all, 86 million doses of vaccine could be delivered and administered. Armed forces were dispatched last year to contain the Taliban when vaccinations are under way and imams have been enlisted to spread the word that the drops are safe and to remind parents that the Qur'an instructs them to safeguard the health of their children.

But if the campaign is going to succeed, hearts and minds in the tribal regions will also have to be changed. That's something Aziz Memon, a leading Pakistani textile manufacturer and a chairman of Rotary International's campaign to wipe out polio, knows something about. It is Rotary that got the global eradication movement started in 1988, and has done more than any other organization to see it through, raising and distributing $1.5 billion to vaccination efforts over the years.

In a recent conversation with TIME, Memon described an experience he had when he visited a hospital in Peshawar to drop off some wheelchairs and took a break to have tea and a biscuit. A hospital worker told him that a Taliban chief and his 18-month old son—who had been stricken with polio and lost the use of his legs—were in a room nearby. This was the kind of man who could make a difference if he could be persuaded to support vaccinations. Memon went into the room to have his tea and chat with the man while the child played on the floor.

Eventually the topic of the boy's illness came up and Memon chose to tell the father a hard and candid truth. *"If you had given this baby two drops",* he said, *"he'd be running now".*

The man, who was wearing a gun on his hip, grew visibly angry. *"Are you God"?* he demanded. *"It was his destiny to suffer this way, and now you are challenging me".*

Memon apologized for giving offense and the two fell silent. At length he noticed that the room had become overly hot and that the boy, who was wearing two sweaters, looked uncomfortable. He recommended that the father remove the sweaters but the father refused, saying that his family came from a cold, mountainous region where the boy was used to bundling up, and he didn't want him to get flu or pneumonia. Memon saw his moment.

"But wouldn't that be his destiny"? he asked. *"Now I am challenging you".*

The Taliban chief, hardly a sympathetic figure, nonetheless did what an ordinary father would do, which was to grow teary. *"You said you could have given him two drops before",* he said. *"Could you give him four drops now"?*

Memon nodded his head. *"No",* he said. *"It's too late".*

Nonetheless, Memon did extract a promise from the man: that he would take some vaccine with him when he left the hospital, vaccinate the rest of his family and offer the drops to his neighbors as well. The man promised he would, then asked Memon for his cellphone number, explaining that he would be sending him a message within the week, and when he got it, he was to read and delete it. Memon agreed. Six days later a text arrived saying that the man had fulfilled the promise he'd made. Memon, as he'd promised in return, erased the message from his phone.

There may never be a way to verify Memon's tale, but even if it is destined to become merely a part of polio apocrypha, its larger lesson is important. In a world of the bloody and bad, it may take only a single human exchange to produce bits of fragile good.

Polio This Week

Source: [Polio Global Eradication Initiative] — as of Wednesday 2 March 2016

Wild Poliovirus Type 1 and Circulating Vaccine-Derived Poliovirus Cases

Total cases	Year-to-date 2016		Year-to-date 2015		Total in 2015	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Globally	5	2	14	0	74	31
- in endemic countries	5	0	14	0	74	3
- in non-endemic countries	0	2	0	0	0	28

Case Breakdown by Country

Countries	Year-to-date 2016		Year-to-date 2015		Total in 2015		Onset of paralysis of most recent case	
	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV	WPV	cVDPV
Afghanistan	0	0	1	0	20	0	20-Dec-15	NA
Pakistan	5	0	9	0	54	2	12-Feb-16	09-Feb-15
Guinea	0	0	0	0	0	7	NA	14-Dec-15
Lao PDR	0	2	0	0	0	7	NA	11-Jan-16
Madagascar	0	0	0	0	0	10	NA	22-Aug-15
Myanmar	0	0	0	0	0	2	NA	05-Oct-15
Nigeria	0	0	0	0	0	1	NA	16-May-15
Ukraine	0	0	0	0	0	2	NA	07-Jul-15

NA: onset of paralysis in most recent case is prior to 2015. Figures exclude non-AFP sources. Madagascar, Ukraine and Lao PDR cVDPV1, all others cVDPV2.

Global Polio Eradication Initiative News

GPEI have published six new videos on 'Securing a Polio Free World' *(right)* covering topics including the polio vaccines, circulating vaccine-derived polioviruses and the upcoming 'Switch'. The videos are available in both English and French.

There are eight weeks to go until the globally synchronized switch from the trivalent to bivalent oral polio vaccine, an important milestone in achieving a polio-free world. Read more about the reasons behind the switch here. Read more ongoing preparation for the switch here.

RIO CARNIVAL PARTY

SUNDAY 15TH MAY 2015

2.30pm for 3:00pm

BRUNSWICK HOTEL

569 Brunswick Street

New Farm Queensland

SAMBALICIOUS Dancers

Direct from Rio

Bubbles, Tapas & Finger Foods

Lucky Door Prizes, Raffles

your cards read by Maria Tarot

Parade by SFH DESIGNS - **Boutique Shopping**

PURCHASE TICKETS ONLINE @ $55.00 (inc GST)
www.trybooking.com/KSRG

More information
sgmackenzie@bigpond.com

A fundraising event with BENJI - net proceeds to Polio Australia

See map here