



Volume 11. Issue

Polio Oz News

December 2021-Summer Edition

Polio: So Far So Good, So Close

By Gary Newton Vice President

October was (and hopefully always will be) Polio Awareness Month with polio survivors in Australia again driving the message "We're Still Here!".

Rotary is still here too fighting to eradicate Polio from the world through their Polio Plus program in support of the Global Polio Eradication Initiative. With only two reported cases in the last polio strongholds so far this year success has never been closer.

To help celebrate World Polio Day (Oct 24) Rotarian and polio survivor, Gary Newton, from the Rotary Club of Geelong East, and Vice President of Polio Australia, created a video on behalf of Rotary and his <u>District 9780</u>.

In this video, titled "Polio: So Far So Good, So Close", 120 participants saw and heard a series of interviews that featured some remarkable and inspiring stories from both polio survivors and Rotarians with firsthand knowledge and experience involved in the eradication process.

Included in the program was a tribute to the late Sir Clem Renouf, who was the first Rotarian to imagine a polio free world. His determined efforts beginning in the late 70's not only changed the face of Rotary but also helped launch the single biggest internationally coordinated public health project the world has ever known.

The video contains interviews with BBC Travel Presenter and polio survivor Ade Adepitan, Ann Lee Hussey and Ramesh Ferris amongst others. "Polio: So Far So Good, So Close" has been highly acclaimed and described by one 40-year Rotary veteran as "the most impressive webinar/ seminar/presentation I have seen. You covered every angle with real life experiences – all true stories and most inspirational."

Significantly, Rotary District 9780 teamed up with Polio Australia, a not-for-profit organisation committed to standardising quality post-polio information to raise funds to both help end polio and support polio survivors in Australia via a new proposed pilot telehealth project.

Polio Australia's vision is that all polio survivors in Australia have access to appropriate health care and the support required to maintain independence and make informed life choices.

To watch the program, go to: World Polio Day 2021 or https://vimeo.com/638045895. ●



Ramesh Ferris
Polio Survivor and Rotarian—Canada
www.globalcitizen.org/en/authors/ramesh-ferris/



Adedoyin Olayiwola "Ade" Adepitan MBE Polio Survivor—UK https://en.wikipedia.org/wiki/Ade Adepitan

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Representing polio survivors

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Polio Around The World

If summer had one defining scent, it'd definitely be the smell of barbecue 99

~ Katie Lee ~



Polio Australia's Websites

Pelio Australia

Representing polio survivors throughout Australia

Welcome to the Polio Australia website. Polio Australia is a not-for-profit organisation supporting polio survivors living in Australia. This website contains information about polio, the Late Effects of Polio, the work of Polio Australia and much more.

www.polioaustralia.org.au

Polio Australia



Improving health outcomes for Australia's polio survivors

The Polio Health website is a comprehensive resource for both health professionals and polio survivors. It contains clinically researched information on the Late Effects of Polio; the Health Professional Register; and where Polio Australia's Clinical Practice Workshops for Health Professionals are being held.

www.poliohealth.org.au

Australian Polio Register Have you added your polio details?

The Australian Polio Register was established by Polio Australia in October 2010 to gather information on the numbers of polio

survivors living in Australia today, whether or not they contracted polio in this country. To make the Australian Polio Register truly reflective of the unmet need for polio services throughout Australia, we urge every Australian polio survivor to join the Polio Register. Our strength lies in our

numbers—please help us to get you the services you need by adding your polio details to the Register. You can register online or by downloading and completing a paper copy.

www.australianpolioregister.org.au

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President's Report



By Gillian Thomas OAM President

As this final issue for the year is distributed, I find myself in the unenviable position of being in respite care, thanks to my partner and fulltime carer falling off a fence and landing in hospital for an unspecified length of time. Neither of us is

getting any younger, and I'm sure there is some kind of law against climbing once you're over a certain age; or there SHOULD be!

It has taken all my years of experience in advocating for people with a disability to come to terms with the situation I now find myself in. I am certainly having to 'up-manage' the staff to convince them that there is a difference between being 'frail aged' and 'ageing with a disability'. Just because I need a high level of assistance with personal care, that doesn't mean I am hurtling down the cognitive slide, nor am I frail! I have lived with my disability for over 70 years and I'm very self-aware of my abilities and limitations, and what will best meet my needs.

One example is the necessity for me to have independence of movement; a basic human right, I thought . . . but not, it would seem. In

From The Editor



By Maryann Liethof Editor

As with every edition of *Polio Oz News*, I have the difficult job of selecting which articles to include and which to put aside. There always seems to be so much happening in polioworld, often much to many

people's surprise! Yes, "We're Still Here!"

October's *Polio Awareness Month* was testimony to the degree of interest in spreading the word about both polio eradication, and post-polio.

Gary Newton kicks off this issue with a Rotary/ Polio Australia awareness and fund-raiser video (p1), with guest speakers from around the world. This excellent production can still be <u>viewed</u>.

And, in spite of covid-19 lockdowns, the Polio Australia Team was able to engage numerous individuals and organisations to help celebrate *Polio Awareness Month* by wearing orange, and lighting up several landmarks across Australia. (p8-9).

Meanwhile, Michael Jackson surveyed polio survivors to determine how lockdowns actually impacted on people's wellbeing (p6). I'm sure we order to acquire an electric wheelchair, I was advised that I would need to have 2 cognitive assessments and 8 x 30 minute training sessions (4 hours!) to learn how to drive it. Oh, and they were too busy to do it for at least a month. Clearly, this doesn't work for me — at all. I have a life, and need to be able to visit and advocate for my partner. And whatever else I want to do!

It brought to mind a 1973 video titled: <u>Captives of Care</u>. According to the description, "Based on a true story, this dramatisation focuses on a group of physically disabled patients who are threatened with eviction after a confrontation with their institution's administrators. Charging that a well meaning but oppressive sense of care is stifling their individuality, the patients demand the right to be responsible for their own lives despite their handicaps." The video quality is not 100% but definitely watchable, and it shows how far (or not!) we have come since 1973.

Even though I am frustrated and annoyed with having to deal with all the barriers I'm being presented with, being part of Polio Australia and Polio NSW over the decades has provided me with the knowledge and resources to be able to assert my needs and rights. It's still hard going — lucky I'm a resilient polio survivor!

Wishing you and yours all the best for the end of the year, and a positive start to 2022.

all hope we've seen the last of *those*, as we learn to get on with the 'new normal'.

And because life does go on, Polio Australia held its Annual General Meeting in November, with a summary by the Treasurer and a link to the Annual Report on p7.

Many polio survivors have made it into the media as well. Starting on p10, you can read many uplifting stories about how people have overcome adversity and, subsequently, increased resilience. This must have been particularly helpful with our current pandemic.

Speaking of pandemics, have you ever wondered what 'Herd Immunity' actually is, and why it matters? Read p19 for the answers.

Some background history on the poliovirus and the woman who "took it on", Marguerite Vogt (p20), will fill in gaps you may not even have known existed . . . What a woman!

Nutritionist, Melinda Overall, has, once again, provided a timely reminder to take stock of your Medications And Nutritional Supplements (p15) as we all wind down for this year, and look forward to a fresh start in 2022.

Finally, I would like to wish all our readers the very best wishes of the Season, as do the whole Team at Polio Australia (p25).

2021 Program Update: Clinical Practice Workshops



By Michael Jackson Polio Australia Clinical Educator

The changing conditions of the pandemic and the new financial year brought about a surge in the number of workshops and professionals reached over the last few months. Comparing the previous

two financial years (FY) which cover the onset and peak of the pandemic to the last 5 months:

FY 2019-2020:

28 workshops / 464 professionals / 16 per session

FY 2020-2021:

21 workshops / 168 professionals / 8 per session

New FY (5 months):

17 workshops / 189 professionals / 11 per session

Prior to the pandemic (remember those days?!) workshops and other in-person modes of education were the staple of our professional education program. In response to how education and group communication changed during the pandemic, we added two online options:

- 1. Hosts could elect to receive the workshop remotely via Zoom for staff
- 2. Online Zoom workshops open to any/mixed clinicians Australia-wide

Taking a closer look at the last 5 months related to mode of delivery some positives and negatives were identified: Most of the 189 attendees were from VIC (72), SA (38), QLD (36), NSW (18), Other (10) and WA (7). The professions of the 97 attendees who obtained the workshop certificate (i.e. attended and completed the quiz) over the last 5 months were physiotherapists (57), occupational therapists (14), orthotists/podiatrists (7), and exercise physiologists (7).

A priority for 2022 is to visit areas that have been physically inaccessible during the pandemic due to border closures: Tasmania, Western Australia, Northern Territory.

Our program benchmarks are to deliver 55 workshops per year, reaching 800 health professionals across Australia. The recent positive trend towards increased receptiveness, scheduling, and participation in workshops this year suggests we may come close to reaching those targets by the close of this FY.

Additionally, over the last 5 months we have: presented exercise research findings at the Rehabilitation Medicine Society of Australia and New Zealand and Australian Association of Gerontology virtual conferences, presented information at Rotary meetings, developed further clinical resources, rolled out advertising campaigns in peak body magazines, and almost have an Aged Care e-Learning Course ready to roll out.

2022 looks to be a busy year, with workshops anticipated to ramp up in late January. Other projects on the radar include Medic Alert card printing and distribution, data mining for hospital LEoP/PPS cases Australia-wide, building and distributing post-polio information kits to major hospitals, and updating clinical manuals.

	In-Person Traditional	Remote Single Staff	Zoom Online Mixed
Workshops number (17)	7	5	5
Professionals attending (189)	128	51	10
Average per workshop	18	10	2
Positives	Higher number of attendees and thus average.	Avoided cyclic rescheduling; lowest costs.	Nurses are the majority; served any clinician anywhere; minimal costs.
Negatives	Limited by COVID travel restrictions.	Attendance easily deprioritised by clinical tasks.	Low registered to attendance conversion.

Community Programs Update



By Steph Cantrill Community Programs Manager

What a year of change and uncertainty it's been. I hope everyone is learning to adapt to whatever the 'new normal' looks like for you. Here's some of what's been happening with community programs, and what's coming up.

Online Sessions

- Monthly Zoom sessions: we have continued to meet monthly, and it's been a great way to connect and learn from each other. We just had our final chat for 2021, and will resume in February next year at 11:00am AEDT on the first Monday of each month.
- **NDIS Zoom chats:** our final chat for this year was on Tuesday 7th December, and we'll continue to meet around once per quarter. These chats are a really valuable point of connection and information for those in the NDIS or those looking to apply.
- My Aged Care / Home Care Packages chats: our first chat was on the 8th of September, and we good representation from across the country. It seems clear that different providers of aged care have differing information and priorities. Opportunities to hear the experience of others can provide a lot of insight. Our next Home Care Packages chat will be Monday 13th December at 11.00am AEDT.
- Webinars: we have two upcoming webinars.
 - Problem-solving assistive technology, with representatives from Solve-TAD (the Victorian TAD organisation, of which there are equivalents in most states – see tad.org.au) on Tuesday 22nd February 2022* at 11:00am AEDT.
 - Managing post-polio pain, with Dr Stephen de Graaff on Tuesday 15th March at 11:00am AEDT.
- * Solve-TAD webinar date may change. Register for the event to stay updated.

In-person Sessions

- Cairns: Friday 25th February, 2022 an inperson event for polio survivors and their partners/carers. Places are limited, so please note attendance cannot be guaranteed. However, if you would like to register your interest, please go to www.trybooking.com/BWEWO and we will see what we can do!
- Adelaide: Monday 21st March seminar event for polio survivors and partners. Speakers will include Dr Nigel Quadros and

- Physiotherapist Kate Seeliger. Details to come.
- Victor Harbor: Tuesday 22nd March information session on Late Effects of Polio. Details to come.
- Port Augusta: Thursday 24th March information session on Late Effects of Polio. Details to come.

Register for all Zoom chats, webinars and information sessions at:

www.polioaustralia.org.au/community-information-sessions.

Advocacy/awareness-raising and lobbying Below are some of the campaigns that Polio Australia supports. For more on our advocacy

and awareness activities, go twww.polioaustralia.org.au/advocacy.

- Assistive Technology for All: this campaign continues to raise awareness of the lack of support available for people with disability outside the NDIS, especially in regard to the funding of assistive technology (aids and equipment). Click here to view the campaign video.
- **Disability Doesn't Discriminate:** similar to ATFA, this campaign is calling for an end to the exclusion of people over 65 from the NDIS. Click here to sign the petition.
- **Building Better Homes:** this campaign is calling for all states to implement the mandatory minimum accessibility standards in the National Construction Code. Click here to see if your state is on board, and how you can let them know you support accessibility for all Australians.
- Polio Awareness Month 2021: what a great October! Thanks everyone for getting involved, wearing orange, getting your local landmarks lit up, writing to your MP, sharing on social media and however else you supported the awareness campaign. We got some great media engagement this year. The "We're Still Here!" message is getting out there! To see a summary of the month's activity, have a look at

www.polioaustralia.org.au/polio-awareness-month.

See you in 2022!

That's about it from me for this year. It's been wonderful connecting with so many of you online and over the phone throughout the course of the year. I wish you all the best for the festive season, and a happy, healthy fresh start for the new year.

Don't forget, we have a <u>blog</u>, and if you're on social media, stay connected! We regularly update our <u>Facebook page</u> with news and information. And our <u>Polio Australia group</u> is a platform for you to share news and ask

Lockdown Impact On Polio Survivors Survey (Part 2)

By Michael Jackson

In the last (Spring) edition of *Polio Oz News*, I shared findings related to a research article out of Turkey (Sahin et al.) titled "The Impact of the COVID-19 Lockdown on the Quality of Life in Chronic Neurological Diseases: The Results of a COVQoL-CND Study" (source).

Only one other person responded in the allotted time frame, so the demographics in the previous article remain unchanged. The state figures do need correcting – the responding survivors resided as follows: VIC 41%, NSW 31%, QLD 18%, and SA 7%.

In this article I will discuss differences within some demographic factors, aspects of the IES-R subscale results, and provide other comparisons to the Sahin et al. study.

Demographics Differences

The majority of the responding polio survivors were aged over 65, with males and females almost equally represented. Younger survivors appear to have higher scores but there were too few responding to this survey to tell for sure.

Very few of the polio survivors (6%) who submitted the survey lived in a rural setting. The majority (62%) resided in metropolitan areas, and the reminder (32%) lived in regional towns or cities. The lockdowns at the time of survey and the larger populations in NSW and VIC led these two states to be highly represented in the survey.

There were no significant differences between the IES-R scores of males and females, nor between metropolitan and regional polio survivors, nor between those pairs when looking at scores >38. There was no difference in scores between any of the three largest responder groups by state (VIC, NSW, QLD). 50% of the respondents had scores of low concern (<24) on the IES-R regarding the impact of lockdowns.

IES-R Subscale Results

The impact questions are split into three types (subscales) to allow us to look at the lockdown responses more closely. The subscales for the IES-R are *Intrusion* (intrusive thoughts and feelings, nightmares, re-experiencing), *Avoidance* (response numbing, avoidance of situations and ideas), and *Hyperarousal* (anger, irritability, easily startled, hypervigilance).

47 respondents had high (mean responses >1.73) scores in all three subscales, which put them above the >38 cut-off where immune function may be suppressed. A third of the respondents from QLD, and a quarter of those from VIC were high in all three subscales, with 2/3 in each of those being female. NSW had one

eighth high in all three subscales, with 2/3 in this group being male. (Other states had too few respondents to examine.) The notable finding from these results was that the responding female polio survivors in NSW had minimal incidence (8%) of being high in all three subscales when compared to males in NSW, and males and female survivors in VIC and QLD (ranging from 19-33%).

Comparisons With Other Chronic Neuromuscular Diseases

As mentioned in the previous issue's article, polio survivors are most comparable in overall scores to those with Parkinson's Disease (PD) in the lockdown findings of Sahin et al. The other conditions in that study included: headache (HA), multiple sclerosis (MS), epilepsy (EP), polyneuropathy (PNP), and cerebrovascular disease (CVD).

This similarity extended to the subscales where the means of responses for polio survivors were 10, 10, and 7 (for intrusion, avoidance and hyperarousal respectively) and for Parkinson's 8, 10, and 7. The CVD group (highest scores) had means in the subscales double that of those with polio or Parkinson's.

Those with Parkinson's were noted to be the eldest group amongst the conditions, a similarity to those with polio. Life-stage and health-disability similarities may be factors in the similar findings of these groups. Sahin et al. also noted that "patients in the PD group cited the loss of communication with the neurologist who made drug dose adjustments as the cause of disruption in treatment", a factor we did not survey.

As summarised in the first article on this topic, this survey and the results highlight the challenges that those with chronic neuromuscular disease face. It is important to seek appropriate support if you recognise lingering difficulties related to being in lockdowns. Follow up with your GP if you have concerns about your ability to cope or with your mental health.

The pandemic in Australia appears to be on a diminishing trajectory, thanks to high immunisation rates across the country. Many of us hope that lockdowns become a rarely used tool of governments as we move into 2022, and that the opportunities to perform surveys such as this one are eliminated.



Treasurer's Report

Polio Australia would like to thank both individuals and organisations for their generous support of \$5,695 during the fourth quarter of 2021. Be assured that 100% of these tax-deductable donations are used to support Australia's post-polio community.

If you would like to see how your 'living bequest' can support polio survivors now, click on the following link: www.polioaustralia.org.au/donations-bequests/ or contact the Polio Australia office on Ph: 03 9016 7678 or Email: contact@polioaustralia.org.au.



By Alan Cameron Treasurer

FY 20/21, whilst still obviously hugely impacted by Covid 19, has seen the organisation reach a position of relative financial stability. Our 2 key service delivery programs – Clinical

Practice Workshops and Community Engagement Program, will now have contracted funding through the Federal Government through the Dept of Health and Dept of Regional Health respectively. In turn that allows us to fund the day-to-day operations of Polio Australia through income raised from individual donations and grants received from philanthropic bodies and from bequests. That is a significant change from the position reported in previous years and is hopefully a sign of things to come. I reported last year that the Board was working assiduously to find funding for core operations and this year those efforts were successful. Of course, now is not a time to rest on that result but rather a time to consolidate our position with further hard work.

Turning now to the specifics of the result, I can report that without JobKeeper and Cash Boost, Polio Australia would have recorded an operating surplus of approximately \$79,000 on revenues of around \$366,000, with expenditure of \$287,000. This compares directly with 2019-20 where revenue was \$344,000 and expenditures \$436,000, on a like for like basis excluding JobKeeper, resulting in a nominal loss of \$82,000. By any measure that is a significant improvement. The reduction in expenditure came about through restructuring moves which



Click here for Polio Australia's 2020-2021 Annual Report

resulted in the closure of the full-time office in Kew, Victoria and a move to a joint office with Polio NSW in Parramatta. That along with some reduced staff hours due to the difficulty of delivering some services because of Covid travel restrictions, and the loss of one permanent staff member were the prime reason for the reduction in expenditures. Most staff are now able to work from home, which has proven to be most satisfactory.

Our thanks go to all the staff who have toiled through these difficult times and have helped transform the organisation.



On your next birthday ...

INSTEAD OF GIFTS, WHY NOT CREATE A BIRTHDAY FUNDRAISER

and use your special day of the year to support polio survivors across Australia





Reflecting On Polio Awareness Month



By Paulette Jackson Administration Officer

This year's Polio Awareness Month campaign seemed like a whirlwind because there were so many things happening. Our theme, "We're Still Here!", focused on raising

awareness for polio survivors living with late effects of polio. As a result, many polio survivors were featured in the media throughout the month. You can view the media coverage at: www.polioaustralia.org.au/polio-awareness-month-2021-media-coverage/

Polio Australia held a contest titled *Light Up Your City Orange* as another way to raise awareness for polio survivors. We asked polio survivors to reach out to their local council to ask for major landmarks or buildings to be lit up orange during the second week in October. What an awesome sight to see Australia lighting up orange to support awareness for polio survivors!

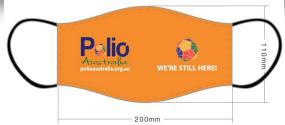
Anyone who asked their local council to light up orange was entered into a drawing to win a Bunnings gift voucher, which was graciously donated by Bunnings. During our monthly Zoom chat, we drew names and had four lucky winners!

Another way Polio Australia worked to raise awareness was asking people to wear orange on 11th October. Many of you participated – survivors, health professionals and even pets! It was lovely to see all of the photos of everyone wearing orange. We had planned to have orange Polio Australia face masks available during Polio Awareness Month (see image below), however the shipment was delayed. These will be available through your state networks very soon.

Finally, Polio Australia celebrated World Polio Day through events with Global Citizen and Rotary International. Gary Newton, Vice President of Polio Australia's Board, hosted the Rotary International event, which can be viewed at: https://vimeo.com/638045895.

Overall, it was a smashing success. We are looking forward to celebrating with you again next year and lighting up Australia orange!





Masks available through State-based Polio Networks. Check <u>here</u> for yours.

Polio Awareness Month—Up In Lights!



Australia's Polio Survivors

'They've forgotten that we're still here'

For most, our previous pandemic is a distant memory. But for these five polio survivors new health problems have just begun.

by Sophie Black

Source: <u>www.theguardian.com</u> – 17 Oct 2021

Australia was officially declared polio-free in 2000. Two decades later, for many people the only time they've stopped to think about the disease was the moment the poliovirus vaccine certification was stamped into their medical records, or later, their children's. But for many polio survivors in this country, and there are approximately 40,000 of them, the last 18 months have served as a reminder of living with the last virus to shut down public places and spread fear through communities.

Of the several polio epidemics that occurred in Australia, the most notable ones occurred in the late 1930s and early 1950s. About four million Australians were infected (although many cases went underreported), with about 20,000 to 40,000 developing paralytic polio between 1930 and 1988.

Polio (poliomyelitis) is a disease that mainly affects children under five years of age. The highly infectious virus attacks the motor neurons that relay messages from the spinal cord to muscles, often leading to muscular degeneration. One in 200 infections leads to irreversible paralysis. Among those paralysed, 5% to 10% die when their breathing muscles become immobilised.

Like Covid-19, vaccination is the only effective preventive measure against polio. Australia began mass vaccination against polio in 1956, and the country's last polio epidemic was in 1961-62, after a second wave took hold due to vaccination rates not being high enough to achieve herd immunity.

Many of those who contracted polio in the 1950s, after leading active lives with what they considered the scars of a disease they'd survived, are now experiencing symptoms recognised as post-polio syndrome (PPS) and/or the late effects of polio. The symptoms can include muscle weakness, pain and debilitating fatigue, with some people developing severe neurological symptoms.

As they grapple with a series of health challenges that many never anticipated, survivors have watched as the country has scrambled to contain the latest pandemic and distribute vaccines that were produced at light speed compared to the years it took to produce

the first polio vaccine, a vaccine that for various reasons, they missed out on.

Gayle Kennedy, Sydney



Gayle Kennedy was born in Ivanhoe NSW. She is a member of the Wongaiibon Clan of the Ngiyaampaa speaking Nation of south-west NSW. Photograph: Carly Earl/The Guardian

I was born in Ivanhoe, New South Wales in 1955. I contracted polio when I was two years old and had to be sent away from the family [for treatment]. It was about three years before I went back to my family. It was just a different world. I didn't even realise I was black. It's pretty much the same for other survivors who had long stints away from their family ... People forgetting their language, forgetting their ways. It was very disruptive. One minute living a fairly carefree, easy going Aboriginal lifestyle, and then back to hospital life.

It's a lonely thing being a polio kid ... A lot of polio people end up being very creative and living inside their heads. I spent some time in an iron lung. When I came to Sydney as a young adult I met like-minded people that were into music and the arts, and I just made a different life for myself, an amazing life. But post-polio syndrome virtually stopped me in my tracks when I was about 55. I was very active, I had a well-paid job with the NSW attorney general's department, but I had to leave because of the intense fatigue. And that's when I decided to become a writer.

Post-polio is horrendous. You think that you've gone through all the bad times and suddenly you find yourself getting weaker and begin experiencing pain and brain fog and fatigue.

Australia's Polio Survivors (cont'd from p10)

I went into a deep depression. But I allowed myself that. I allowed myself the sadness ... Eventually, I started to build a new life for myself. And I've done all my traveling overseas in a wheelchair.

At 66, I'm one of the youngest survivors. But people have forgotten about polio, they've forgotten that we're still here, dealing with the after-effects. It annoys me immensely when I see people raging against vaccines ... Don't they realise that these diseases could take hold again? That's a thing that terrifies me. I worry that there could be another outbreak. It's possible, because it's always there. It's kept at bay by vaccinations.

Full article here:

https://www.theguardian.com/australia-news/2021/oct/17/australias-polio-survivors-theyve-forgotten-that-were-still-here

Sue Mackenzie Presented With Paul Harris Award



By Graeme Mackenzie

At a recent Rotary Club of New Farm Meeting (Queensland), Sue Mackenzie received a Paul Harris Fellow Award. This is a very prestigious and sought after Award in Rotary, and very much deserved for her work in speaking to Rotary Clubs throughout Queensland and in raising funds for Polio Australia and Rotary Charities including End Polio Now.

Here is something about why Sue was presented with a Paul Harris Fellow Award.

Sue joined Polio Australia in 2014 after falling over, again, but this time breaking an arm.

From that time Sue has presented to around 30 Rotary Clubs from Mareeba to Runaway Bay telling her story and seeking to rekindle Rotary links to polio survivors. Sue was made a Director of Polio Australia in 2016.

Rotary was originally very involved in helping polio survivors, including establishing Crippled Children's' Homes. As a child Sue was a beneficiary of this program, spending two years in such a Home from age 2. Rotary then focused on eradicating the terrible polio virus. When she spoke to Sir Clem Renouf, he said he no idea of the difficulties polio survivors face today. 99% of polio survivors recovered without obvious disability. However, the 1% of polio survivors who had lasting effects related to paralytic polio become largely invisible.

Sue joined Rotary New Farm in 2016 after meeting Mark Mitchell at a Polio Australia <u>Walk With Me</u> (WWM) event. Sue soon changed this event to *Wine With Me* and, together with Rotary New Farm, we hosted two very successful WWM events at our apartment. Around 50 attended the last WWM.

When Rotary New Farm changed venues to The Brunswick Hotel, Sue decided the décor in the bar lent itself to a Gatsby event, so we held two of those. Nearly 100 people attended the last event and all wanted to buy tickets for the next one—unfortunately COVID killed it.

The important thing about the Polio Australia and Rotary New Farm events is the fun everyone had and how they enhanced awareness and membership. Everyone wanted to be involved. They also raised funds from donations. Sue's presentations and events have raised around \$50,000 for both Polio Australia and Rotary New Farm charities.

Note from the Editor: Sue Mackenzie continues to be a tireless advocate and fabulous fundraiser for Polio Australia. The Board and Team at Polio Australia congratulate her for achieving this much-deserved Award.

World Polio Day 2021—Round Table And Briefing

By Megan Studman

Events and Programs Manager, Oceania Global Citizen

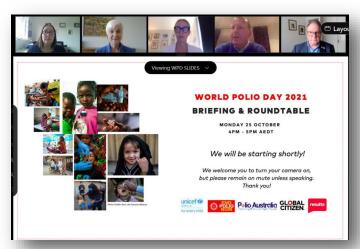
On Monday the 25th of October, Global Citizen, Results Australia, Rotary International Australia, UNICEF Australia and Polio Australia joined forces at the World Polio Day 2021 Stakeholder Roundtable and Briefing.

We're all proud of the Australian Government's continued engagement with polio eradication and the attendance at this forum reaffirmed that commitment to us all.

The presentation, prepared by the World Health Organisation, contained all of the key points raised by WHO's Aidan O'Leary.

Next year will mark the beginning of the Global Polio Eradication Initiative's (GPEI) 2022-26 eradication roadmap. With only two cases of wild poliovirus reported in 2021 so far, we are closer than ever to seeing a world without this crippling disease and the next 12 months will determine the success of this ambition.

As such, the GPEI will be making a new call for support to nations and businesses alike to continue their support for the program next year. We certainly hope to see Australia's leadership on polio eradication continue next year and beyond as Foreign Minister Marise Payne noted in her video message.



Global Citizen, Results Australia, UNICEF Australia, Rotary International and Polio Australia will all be supporting the GPEI during that time. We hope to remain closely engaged with the Australian Government as part of this process, and we always welcome ideas and suggestions on how we and the community more broadly can positively support the Government's leadership on polio eradication.

On behalf of all of the event's partners, the 42 participants were thanked for their interest and attendance!

What Life Is Like Decades After Polio

By Madeleine Keck

Source: www.globalcitizen.org —20 October 2021

Western Pacific Region, was officially declared polio-free in 2000, despite Australia's last polioendemic case occurring almost 40 years prior, in the early 1960s. For two generations, Australians and the majority of the developed world, have lived without the constant fear of the debilitating disease.

Today, in 2021, polio only remains present in Afghanistan and Pakistan, with each nation recording just one case so far this year.

<u>Australia's 40,000 polio survivors</u> want everyone to know, however, that polio is not over; that as long as one polio case exists, the world remains at risk. It's also vital to understand, they

explained, that polio continues to affect their lives, with many now living with post-polio syndrome — a variety of symptoms that occur decades after the initial polio illness.

In the lead-up to World Polio Day on Oct. 24, Global Citizen listened as survivors across Australia explained how the deadly disease has affected them, how they would like the Australian Government to address eradication efforts and why polio and COVID-19 draw so many parallels.

Read all six stories here.

- 1. Paul Absalom—Northern Territory
- 2. Elizabeth Edmonson—Western Australia
- 3. Alan Cameron—New South Wales
- 4. David Luck—Australian Capital Territory
- 5. Gary Newton—Victoria
- 6. Chandra Sluggett—South Australia













Polio Awareness Month In The News

Click on the links below to read more stories which appeared in the media during October's Polio Awareness Month:



Gillian Thomas, centre, with her brother Richard and her sister Jacqueline. Jacqueline and Gillian both contracted polio in 1950 but Gillian's case was far

more severe, causing paralysis.

Polio survivors living with disease's lasting effects fear some might not even know due to past stigma, secrecy
By Sarah Moss

Source: ABC Illawarra

www.abc.net.au/news/2021-11-13/polio-survivors-living-with-disease-lasting-effects/100568596

End in sight for a disease that closed borders, shut pools and theatres By Julie Power

Source: The Age

www.theage.com.au/national/end-in-sight-for-a-disease-that-closed-borders-shut-pools-and-theatres-20211021-p591xg.html? fbclid=IwAR3koQoM1k5I2c4c4nzu7Dmp6W41sTts9a UydFsfrGBI5-0UdbuUTtRUjU

Paralympic Inspiration

"Just put your heart into it and try, try, try."



John Tierney

in

Australia • johnwtierney.contently.com

Writer - Opinion/Politics

Dr John Tierney AM PhD MEd BEc, is a writer and former Hunterbased federal senator.

by Dr John Tierney

I was born into a family of athletes. My brother Jeff carried the Olympic torch on the road to Melbourne in 1956. My other brother Michael was also an outstanding athlete. We have a family photo of him with a chest full of blue and red ribbons, won at regional sports carnivals.

I only ever managed one plain yellow ribbon in my entire 'athletics career.' I raced with an iron calliper on my left leg, finishing well behind the field in the five-year-old 100-yard dash in 1951. I received my ribbon for 'having a go.'

I couldn't move very quickly, but years later I was able to hit a tennis ball very hard and accurately with my one good limb into the corners of the court. My opponents would rush frantically back and forth, attempting to return my sizzling shots.

Allowing me to participate in sport was part of my parent's 'normalisation' program, which they felt necessary because I had contracted polio at birth when a careless doctor delivered me after attending a polio patient.

However, despite my parent's best efforts, further progress for me in the world of sport was blocked by the lack of opportunities and prevailing social attitudes 70 years ago.

For children with a disability in the 1940s and 1950s, not much was done for the 'handicapped' as we were known. Sporting participation was not encouraged because it seemed apparent that we could not compete, and it was thought that we might further injure ourselves.

Opportunities and attitudes started to change in 1960 when the first Paralympic Games were staged in Rome. Watching the Tokyo games demonstrated how far we have come over the last seventy years, with opportunities for people with different disabilities across an extensive range of sports.

In recent weeks, I came to appreciate the physical challenge, true grit, and wonderful spirit of these brave Paralympians when I watched wheelchair rugby, track athletes running with only peripheral vision, and a swimmer without arms competing in the pool.

The challenge for Paralympians is far greater than that faced by Olympians with their perfectly formed bodies. The latter have been fine-tuned to the point where mind and body can synchronise when performing a dive, delivering a tennis serve or executing a gymnastic routine.

The Paralympian is often challenged by nerve connections or limbs that do not function effectively or may even be missing. The challenges to perform in sporting events in such circumstances is immense and daunting to most.

It would undoubtedly be the case for Curtis McGrath, who lost both legs when he stepped on a landmine while serving with the army in Afghanistan. He is now the world's best paracanoeist, winning numerous international titles and gold medals in Rio and Tokyo.

Paralympic Inspiration (cont'd from p13)

Last week there was a belated recognition that Paralympians should be treated more equitably. After all, in 2021, their super-human performances have delivered Australia 80 medals, including 21 gold, and placed Australia 8th out of 162 participating nations. This has provided a real boost to national pride and joy during these dark times.

The announcement by Prime Minister Morrison that our Paralympians would receive the same cash bonuses as Olympic medal winners were welcomed by McGrath. "We just want an equal playing field, and we want an equal opportunity because that's what the Paralympics is about," he said.

Listening last week to the interview with Paralympic swimmer Rachael Watson, I wondered why it had taken the government so long to act on this equity issue. After winning her third swimming gold medal in the Tokyo games, Watson highlighted the enormous challenges for athletes with a disability.

Rachael was born with mild cerebral palsy and later contracted Guillain-Barre Syndrome, resulting in her being classified as an S4 swimmer. People with this condition have some weakness in their hands and arms and no use of their body core or legs. Despite this profound disability, Rachel has won gold in both Rio and Tokyo. In 2017 she was awarded an OAM for service to sport.

After winning her third gold medal at the Tokyo games last week, Rachael had this message to aspiring Paralympians: "Just be kind to yourself, you're going to want it to happen straight away, and it's not, and it's going to kick you in the guts a million times. People will tell you that you can't do this, but you just have to put your heart into it and try, try, try."

That's the pure Paralympic spirit. What an inspiration to all of us in these challenging times.

Newcastle East's Dr John Tierney AM is a former President and National Patron of Polio Australia

Ken Hutt's 2022 Everest Assault

Gary Newton, Polio Australia's Vice President and proud Rotarian, has been communicating with NSW -based Rotarian and paraglider, Ken Hutt, who contacted Polio Australia regarding a proposed 'Everest Assault'. Read more here.

Ken is planning for April/May 2022, using a glider he is having specifically built for this trip. This is to both promote awareness of Rotary's work, and to raise funds for their *End Polio Now* campaign. Ken was seeking the Board's permission to incorporate Polio Australia's logo on the wing of his glider to promote awareness of Polio Australia's work.

If all goes well, Gary might try to meet up with Ken and a couple of the other younger, international polio survivors, in Nepal!



Medications And Nutritional Supplements

By Melinda Overall

Nutritionist and Counsellor www.overallnutrition.com.au

People rarely stop to consider the possible negative health impacts of taking nutritional or herbal supplements. They're often perceived as 'natural' and therefore it is assumed they can do no harm. Supplements are readily available from health food stores, pharmacies and supermarkets, so they must be 100% safe, right? Let's look at why that's not the case.

As a nutritionist, I do prescribe nutritional supplements but I prefer to work with clients on improving their nutrient intake through diet. Wholefoods are complex and are good sources of vitamins and minerals. Nature also provides foods that have synergistic nutrients, rather than food with standalone vitamins and minerals. When was the last time you picked a magnesium fruit from a magnesium tree?

Supplements should only be considered as an adjunctive therapy to an improved diet, and they should never replace a sound, diverse and wholefoods diet. Additionally, self-prescribing supplements should be avoided and rather, a practitioner trained in the use of, and prescribing of, supplements should direct you after undertaking a comprehensive health and medication history.

Polypharmacy

Whilst there is no set definition of polypharmacy across the globe, the general consensus is that polypharmacy is the concomitant prescription and ingestion of four or more medications [1]. A 2019 retrospective, cross-sectional study estimated the prevalence of polypharmacy in Australians aged between 18–64 to be 39% [2]. Even more remarkably, the prevalence of polypharmacy in Australian adults over the age of 75 years is estimated to be 52.1% with more women affected than men [3]. Some people over the age of 75 can be prescribed up to 15 medications and sometimes more [3]. The introduction of herbal or nutritional supplements can further contribute to the burden of polypharmacy.

Issues with polypharmacy

Taking multiple medications, and/or supplements, over months and years can lead to a number of negative health outcomes including [4]:

- Drug- drug interactions
- Drug- nutrient interactions
- Changes in drug efficacy
- Drug prescribing cascade being prescribed a drug to attend a side – effect of another drug
- Increased risk of falls
- · Increased risk of fractures

- Increased risk of sarcopaenia
- Increased risk of developing chronic kidney disease
- Lowered cognitive function
- Reduced physical function
- Increased risk of hospitalisation
- Reduced quality of life

Supplements and medications

The concomitant use of nutritional and herbal supplements with medication is often cautioned or contraindicated. This is because they may interact with the drug or change the way the drug is metabolised by your body, and change the way medications work in your body. Interactions can reduce or increase drug potency.

Common interactions

The following are just a few common interactions where patients need to be cautious about use or supplements, or avoid their use without the approval of your GP/specialist [5]:

- Metformin (drug) and chromium (mineral) both lower blood sugar levels;
- Warfarin (drug) and fish oil or CoEnzyme Q10 (accessory nutrients) – all are blood thinners;
- Antibiotics (drug) and zinc (mineral) zinc can reduce the effectiveness of antibiotics;
- Levodopa (drug) and vitamin B6 vitamin B6 can significantly reduce the effect of levodopa;
- Anti-depressants SSRIs (drug) and tryptophan (amino acid) - can cause serotonin syndrome;
- Simvastatin (drug) and St John's wort (herb)

 this herb reduces the blood plasma levels of simvastatin, a cholesterol-lowering drug;

Food interactions?

Some foods can interact with medications too. The most common food that interacts with is grapefruit and grapefruit juice. For this reason, I discourage the consumption of grapefruit for anyone taking medications.

Supplements and nutrient toxicity

Some nutrients, particularly minerals and the fat soluble vitamins (A,D,E and K) can cause toxicity and adverse health outcomes if ingested at too high a dose or for too long. A fairly benign example – too much magnesium or vitamin C might cause diarrhoea. Read more about this topic here: Better Health Channel. It is interesting to note that toxicity is rarely seen with nutrient intake from food; it is substantially more common with supplement use.

Medications And Nutritional Supplements (cont'd from p15)

Medication reviews

It is a good idea to have an annual review of your medications with your GP or pharmacist, as well as having any supplements checked by a fully qualified nutritionist. Additionally, it is strongly recommended that you don't self-prescribe nutritional or herbal supplements, even if they are available at the supermarket.

It is important that you advise your health care practitioners of *all* medications and *all* supplements that you are taking.

Stay well, stay safe.



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Monumental Challenge To NDIS Laws

By Luke Grant

Source: www.3aw.com.au – 23rd October 2021

The Australian Human Rights Commission will decide on the validity of a law which discriminates against over 65s seeking support from the NDIS.

The National Disability Insurance Scheme is not available to Australians who were older than 65 years old when the scheme was introduced, or who need disability support after they turn 65.

Luke Grant has criticised the cutoff, saying it is an example of age discrimination which has sadly been accepted by our laws and society.

However, it's understood a complaint before the Australian Human Rights Commission could challenge the restrictions on the basis of disability and age discrimination.

If successful, it would be an Australian-first challenge, and would allow thousands of older Australians access to the funding support they need to live life properly.

Dr Peter Freckleton [a Polio Australia Board Member] is a polio survivor from the 1950s, and is still living with the impacts.

His application for support under the NDIS was refused because of his age, and as a result he lives with his disability without the full level of help he needs. Luke Grant spoke exclusively with Dr Freckleton, who says there is a strong possibility of the laws being successfully challenged in court.

Click the following link to listen to the full interview: https://www.3aw.com.au/monumental-challenge-to-ndis-laws-an-australian-first/

More on the NDIS here:

https://www.smh.com.au/politics/federal/peteris-in-a-wheelchair-after-getting-polio-but-thendis-says-he-s-too-old-for-funding-20211025p592z4.html#comments



Report: 2021 A Difficult Year

By Kymberly Martin

Source: www.freedom2live.com.au

- 8 December 2021

The disability sector is struggling with service providers "seriously concerned" about the future, data from the annual National Disability Services State of the Disability Sector Report has revealed.

Three words came to the fore in the report: 'pessimism, frustration and distress', with at least four causes at the centre of concern. These are: the National Disability Insurance Agency, financial worries, staff shortages and innovation.

Firstly, the NDIA with just 12 per cent responding that the agency works well with providers, less than half of the number from last year; 59 per cent feel that it imposes 'too many unnecessary rules and regulations', and even more object to its 'systems and processes'. As for the NDIS policy reforms that are underway, only 25 per cent feel that these are heading in the right direction.

trading conditions and sentiment recover, there is a deep sense of financial pessimism for the disability sector with 65 per cent of providers saying that operating conditions are getting worse, up from 61 per cent in 2020 and 38 per cent in 2019. And only 57 per cent of those that recorded a profit in 2021 expected to make a profit in 2022.

Recruiting and retaining workers has been an issue for all industries this year. In the latest ABS survey, 27 per cent of Australian businesses reported difficulty finding staff but the disability sector seems to be doing it tough, with 70 per cent of providers reporting problems recruiting support workers, up from 59 per cent in 2020. In 2021, it was harder to recruit occupational therapists and disability support workers while recruitment of speech therapists, psychologists and physiotherapists remains challenging.

Finally, innovation and how the current system is failing to provide conditions that enable it to flourish. It's hard to escape the conclusion that pricing arrangements together with a general sense of policy uncertainty, have made it difficult for providers to think far ahead, or invest in the future.

However, NDS interim CEO Laurie L believes there is a way out of NDS interim CEO Laurie Leigh this predicament.

"We need to understand that the system is made up of the NDIA, participants and providers. Providers should be proactively engaged by the NDIA to build collaboratively a system that works to deliver the services needed by people with a disability.

Co-designing the scheme with participants and providers, creating a transparent model, and holding all governments to account for the outcomes are just three of the 11 action points the report underlines.

"It's important something is done now to correct these issues, because it's been a difficult year for disability service providers and most expect 2022 to be worse," Leigh said.

NDIS Updates Disability Support Guidelines

By Kymberly Martin

Source: www.freedom2live.com.au - 8 December 2021

The NDIS has updated its guidelines for disability-related health supports that relate directly to the functional impact of the disability. The NDIS can fund these health supports to help manage a health condition.

The guidelines are primarily intended to give information on what health supports are covered, how to get supports in a plan, what assistance is available through the health system or other services and mainstream and community supports that are also available.

View and download the guidelines here:

https://ourguidelines.ndis.gov.au/supports-you-can-access-menu/ disability-related-health-supports



An Uplifting Book About Polio

By Karla Peterson, Columnist

Source: www.sandiegouniontribune.com

- 4 December 2021

The title of Wayne Raffesberger's memoir is certainly memorable. That title is: "Thank God I Got Polio: A Life of Adventure and the Adventure of Life". And for the San Diego author, the best thing about the book's headline-worthy name is not that it's eye-catching, intriguing or possibly a little shocking. The best thing about it is that it's true.

"It means exactly what it says. It's not just me trying to be clever," Raffesberger said from his home in Point Loma.

"Getting polio made me empathetic and sensitive to others in ways that I probably wouldn't be otherwise. It certainly made me more humble and accepting of things. There is no question that it led me back to faith. I don't know if I would be any of those things if I hadn't had it."

He is 70 now. His collection of life adventures includes skiing down a glacier, climbing Mount Kilimanjaro and the Matterhorn, working with local politicians and civic organizations, teaching at UC San Diego and the University of San Diego, and competing in the annual Sloppy Joe's



Author and adventurer Wayne Raffesberger is shown in front of the fountain at Rady Children's Hospital. His new memoir, "Thank God I Got Polio: A Life of Adventure and the Adventure of Life," recounts his journey from a bed at Rady Children's to a life that included a climb to the top of Mount Kilimanjaro to raise money for the hospital. (Eduardo Contreras/The San Diego Union-Tribune)

<u>Ernest Hemingway Lookalike Contest</u> in Key West, Fla. Nine times.

But when his memoir begins, Raffesberger is neither a seasoned daredevil nor a mover-and-shaker, and he is many years away from being able to grow a Hemingway-worthy beard. He is a boy living in a small rental house in City Heights, and his legs have suddenly stopped working.

Read full article <u>here</u>.

member and newsletter editor for the Lehigh Valley Post Polio Support

Vale Daniel J Wilson PhD (1949-2021)

In June of 2021, the post-polio community lost a dedicated advocate for polio survivors, Daniel J. Wilson, PhD. Dan joined Post-Polio Health International's board in 2006 and served in various roles, most recently as Board President from November of 2020 until his death this past June. He was Professor of History Emeritus at Muhlenberg College in Allentown, Pennsylvania, where he taught from 1978 to 2018 specializing in the history of medicine and history of disability.

Dan also served on both the board of the Lehigh Valley Center for Independent Living, including two terms as president, and on the board of the Good Shepherd Rehabilitation Hospital. He was a long-time

"He not only had an extensive list of achievements, honors and recognition for his work, but he was generous with his time and energy to benefit others," remarks fellow board member Carol Vandenakker-Albanese, MD. "The loss of his leadership, well-informed perspective and wisdom will be greatly missed."

Group before it disbanded about ten years ago.

Below is a sampling of Dan's prolific work on behalf of polio survivors. More here.

Books:

- Living With Polio: The Epidemic and Its Survivors. University of Chicago Press, 2007
- Polio (<u>Biographies of Disease</u>), Greenwood Press, 2009.
- Polio Voices: An Oral History from the American Polio Epidemics and Worldwide Eradication Efforts.
 Eds. Daniel J. Wilson and Julie K. Silver. Westport, CT: Praeger, 2007.
- "Passing in the Shadow of FDR: Polio Survivors, Passing, and the Negotiation of Disability" in Disability and Passing: Blurring the Lines of Identity. Eds. Daniel J. Wilson and Jeffrey A. Brune. Temple University Press, 2013.

International Post-Polio Stories

Click on the links below to read more polio-related stories which appeared in international media:



Texas Man Lives 70 Years in an Iron Lung *By David Kindy*

Source: Smithsonian Magazine – 5 November 2021 www.smithsonianmag.com/smart-news/texas-man-lives-70-years-in-an-iron-lung-i-never-gave-up-180979008/



New Zealand Polio Survivors Urge Whānau To Get Covid Vaccine

By <u>Te Aorewa Rolleston</u>, Reporter

Source: RNZ - 23 November 2021

www.rnz.co.nz/news/covid-19/456309/it-takes-everything-to-overcome-this-fight-polio-survivors-urge-whanau-to-get-vaccinated

What Is Herd Immunity?

Authors:

Rodney E. Rohde, Professor of Clinical Laboratory Science, Texas State University **Ryan McNamara**, Research Associate of Microbiology and Immunology, University of North Carolina at Chapel Hill

Source: theconversation.com – 3rd November 2021

The term <u>herd immunity</u> means that enough of a population has gained immunity to stifle a pathogen's spread. You can think of herd immunity as being similar to fire starting in a field: If the field is dry and filled with weeds, the fire will catch and spread quickly. However, if the field is well-maintained with watering and trimming, the fire will fizzle out. Future embers that might land there will be far less likely to ignite.

The embers are much like SARS-CoV-2, the coronavirus that causes COVID-19.

Herd immunity can theoretically be achieved either through infection and recovery or by vaccination. The danger of trying to achieve herd immunity through infection is that many people will die or be forced to live with post-recovery disabilities. Moreover, research has shown that the immune response resulting from infection

does not always provide strong enough longterm protection against COVID-19 and its evolving strains. Thus, public health experts still recommend vaccination against the coronavirus to achieve the strongest and most reliable protection.

When the COVID-19 pandemic erupted, scientists quickly began to develop vaccines so that populations could develop immunity to <u>slow</u> the firelike spread of the coronavirus. In the meantime, nearly all countries mandated or encouraged social distancing, masking and other public health measures.

Unfortunately, the disjointed implementation of these efforts, coupled with large-scale surges and the <u>emergence of the highly transmissible delta variant</u>, has forced public health experts to recalculate what it would take to reach "herd immunity" for COVID-19.

Why herd immunity matters

Prior experience with respiratory pathogens that were comparable to the new coronavirus allowed public health experts to make educated estimates of what would be needed to reach the lower threshold of herd immunity for COVID-19. Initially they believed that around 70% of the population would need to be vaccinated to effectively slow or stop the spread of SARS-CoV-2.

Cont'd page 19

What Is Herd Immunity? (cont'd from p19)

But with the delta variant continuing to spread rapidly around the world, experts revised that estimate. Now, epidemiologists and other public health officials estimate that closer to 90% of the U.S. population would need to be vaccinated to reach herd immunity for COVID-19.

Viruses like those that cause polio and measles required decades of education and vaccination programs to achieve herd immunity and to ultimately eliminate them in the U.S. But given that new U.S. cases of COVID-19 continue to number in the tens of thousands daily, it's become clear that COVID-19 is going to stick around.

There are several reasons it will take some time to achieve COVID-19 herd immunity. The COVID-19 vaccines are currently authorized for some age groups but not others. For perspective, roughly 90% of the U.S. population receives the measles, mumps and rubella vaccine – or MMR – as children, and 93% of the population is vaccinated against polio; both of these have been routine childhood immunizations for decades. Since children make up more than 20% of U.S. residents, the country likely cannot reach COVID-19 herd immunity without widespread childhood vaccination, even if all eligible adults were vaccinated.



As of Nov. 1, 2021, only 67.8% of the total U.S. population ages 12 and up that are <u>vaccine-eligible had been fully vaccinated</u>. Experts have attributed this to multiple factors including <u>vaccine hesitancy</u> and the <u>politicization of the pandemic</u>.

Of course, no vaccine is perfect. Vaccinated people can have breakthrough infections, although the COVID-19 vaccines continue to effectively reduce the most severe cases of COVID-19. In addition, research suggests that those who experience COVID-19 after vaccination may transmit the virus at lower transmission rates than those who are unvaccinated.

Marguerite Vogt

By taking on poliovirus, Marguerite Vogt transformed the study of all viruses

By Megan Scudellari

Source: <u>www.sciencenews.org</u> – 18 September 2021

When nobody else wanted the job, Marguerite Vogt stepped in.

Working from early morning until late at night in a small, isolated basement laboratory at the California Institute of Technology, Vogt painstakingly handled test tubes and petri dishes under a fume hood: incubating, pipetting, centrifuging, incubating again. She was trying to grow a dangerous pathogen: poliovirus.

It was 1952 and polio was one of the most feared diseases in America, paralyzing more than 15,000 people, mostly children, each year. Parents wouldn't let their children play outside, and quarantines were instituted in neighborhoods with polio cases.

Scientists were desperate for information about the virus, but many were hesitant to work with the infectious agent. "Everybody was afraid to go to that little lab in the basement," says Martin Haas, professor of biology and oncology at the University of California, San Diego, and a personal friend and collaborator of Vogt's for over three decades.

Vogt, a brand-new research associate in the laboratory of Renato Dulbecco, took on the task of attempting to grow and isolate the virus on a layer of monkey kidney cells. The method was called a plaque assay for the distinctive round plaques that form when a single virus particle kills all the cells around it.

Vogt didn't tell her parents, both acclaimed scientists in Germany, that she was working with the virus. She later remarked that her father would have been very angry had he known of her poliovirus work, Haas says.

After a year of persistence, Vogt succeeded (and remained virus-free). In 1954, she and Dulbecco published the method for purifying and counting poliovirus particles. It was immediately used by other scientists to study variants of poliovirus, and by microbiologist Albert Sabin to identify and isolate strains of weakened poliovirus to make the oral polio vaccine used in mass vaccination campaigns around the world.

Marguerite Vogt (cont'd from p20)

Perhaps even more importantly, the poliovirus plaque assay enabled scientists worldwide to analyze animal viruses at the level of individual cells, a field now known as molecular virology. Vogt and Dulbecco's approach remains the gold standard for purifying and counting virus particles, including in recent studies of SARS-CoV-2, the virus that causes COVID-19. The method, used to measure how infectious a virus is and isolate strains of a virus for further research, is ubiquitous in labs around the world.

Throughout a career spanning three-quarters of a century, beginning with a publication when she was 14 years old, Vogt contributed extensively to our knowledge of the genetics of animal development, how viruses can cause cancer and cellular life cycles. Upon her death in 2007 at the age of 94, nearly 100 three-ring binders lined the shelves of her office, filled with notes on decades of experiments.

Vogt was known for her intense, inventive lab work, including what others have called her "green thumb" for tissue culture — the process of growing cells, viruses and tissues in a dish.

"Being a meticulous person, she worried about every detail of the process of cell culture," says David Baltimore, biologist and president emeritus of Caltech who worked for three years in a lab close to Dulbecco's. "That's really important, because it is finicky. Long experience and precise handling are key to getting good data."

Born in 1913, Vogt grew up in Germany surrounded by science. The younger daughter of two pioneers of brain research, Oskar and Cécile Vogt, she and her sister Marthe were budding scientists from their youth. Marguerite Vogt's first paper, published in 1927, investigated the genetics of fruit fly development.

But a year after receiving her M.D. at the Friedrich Wilhelm University in 1936, Vogt and her liberal family were ousted from Berlin by the Nazis. Her parents lost their positions at the Kaiser Wilhelm Institute for Brain Research (now the Max Planck Institute), and Oskar was accused of supporting communists. The family avoided arrest or death due to the intercession of the Krupp family, former patients of Oskar's and well-connected arms manufacturers who supplied the Nazi regime. With funding from the Krupps, Oskar and Cécile set up a private brain research institute in a remote part of Germany's Black Forest. There, they continued their research and offered shelter and jobs to other people fleeing Nazi persecution.

From her parents' institute in the Black Forest, Vogt published 39 seminal papers on how hormones and genetics influence the development of fruit flies, work that was later

considered ahead of its time. In 1950, with the help of German-American scientists Hermann Muller and Max Delbrück, Vogt emigrated from Germany to the United States. Vogt rarely talked about her experiences during World War II. She never returned to Germany and refused to speak her native tongue with visiting German students and scientists.

After briefly working with Delbrück on bacterial genetics, Vogt went to work for Dulbecco on the poliovirus assay in 1952. After that success, the pair investigated the role of viruses in cancer. Once again, Vogt developed a technique to grow a virus — this time a small DNA-containing virus called polyomavirus — and the pair was able to count how many cells the virus transformed into cancer cells. In subsequent papers, the team demonstrated that certain viruses integrate their genetic material into host cell DNA, causing uncontrolled cell growth. The discovery changed the way scientists and doctors thought about cancer, showing that cancer is caused by genetic changes in a cell.

In 1963, Vogt followed Dulbecco to the Salk Institute in La Jolla, Calif. There, she spent decades studying viruses that can cause tumors, as well as other areas that sparked her interest, such as trying to define a cellular clock. "She was not only very intense, she was very inventive," says Haas. "She always knew which way to go and what do to."

Like the early days studying poliovirus, Vogt worked long and hard, typically six days a week, 10 hours per day. "She liked trying new things, so we often tried to do techniques that she had admired in papers she had read, or we learned things from other labs," says Candy Haggblom, Vogt's laboratory assistant for the last 30 years of Vogt's career.

Vogt never married or had children. "Science was my milk," she told the New York Times in 2001. But Vogt didn't lack for company: She was a friend and mentor to many of the young scientists in the lab, four of whom went on to earn Nobel Prizes, and as an accomplished pianist and cellist, Vogt hosted a chamber music group that met at her home every Sunday morning for over 40 years, Haas says.

In 1975, Dulbecco was awarded the Nobel Prize in physiology or medicine for work on how tumor viruses transform cells, a prize shared with Baltimore and virologist Howard Temin. Vogt was not recognized, and Dulbecco did not acknowledge her in his Nobel lecture.

During her lifetime, Vogt did not receive a single major prize or recognition. Despite an advanced degree and prestigious publication record, Vogt did not become a professor or get her own lab at Salk until after Dulbecco left the institute in 1972.

Marguerite Vogt (cont'd from p21)



She was 59 years old. That rankled her, says Haas, who cared for Vogt later in her life and thought of her like a mother. "She ran his lab while he ran around the world giving talks," he says. "Marguerite ran it all."

At 80, Vogt regularly jogged into the lab early in the morning. At 85, she published her final paper, fittingly about how human cells slow down and lose their ability to replicate with age.

Marguerite Vogt, shown here at the Salk Institute during her later years, took on the task of attempting to grow and isolate poliovirus when many scientists were reluctant to work with it. Courtesy Of Martin Haas

Brazil At Risk For Reintroduction Of Polio

By Mônica Tarantino

Source: www.medscape.com
- 3rd November 2021

Brazil is one of six countries in the Americas at high risk for the reintroduction of polio, Pan American according the Health to Organization (PAHO). The others are the Dominican Republic, Ecuador, Guatemala, and Venezuela. Another countries, Haiti and Bolivia, are at very high risk, PAHO member Luiza Helena Falleiros, MD, PHD, pediatrician and infectious disease specialist at the Metropolitan University of Santos in Brazil, said during the October 19 webinar, entitled Why Do We Still Need to Talk About Polio? The event was sponsored by Sanofi Pasteur, which manufactures inactivated vaccines.

Since 2015, Brazil has faced a troubling decline in vaccination rates for polio and other contagious diseases.

"Currently, among children up to 1 year of age, we have just 62% polio vaccination coverage with the primary immunization series, which consists of three doses of inactivated polio vaccine (IPV). So roughly 40% of children did not receive the primary series that they should have," said Falleiros.

The goal is to have at least 95% of the eligible population vaccinated against polio, she said. "There is a concern about what the future holds. We have to think about which integrated solutions will get us back to where we were coming into the 21st century."

The immunization dropout rates are another cause for concern. "The number of children receiving polio vaccine boosters at 15 months and at age 4 is even lower," said Juarez Cunha,

MD, pediatrician and president of the Brazilian Immunization Society. Of the 2.7 million children born in 2020, 2.4 million received the first dose of the vaccine and 2.2 million received the third dose. "If we think about these numbers, we're talking about 500,000 children who are not adequately vaccinated and protected," he said.

In Brazil, the national child immunization schedule recommends a polio vaccination series that consists of IPV administered at 2, 4, and 6 months plus the oral polio vaccine (OPV) booster administered at 15 months and at 4 years.

The switch from the trivalent oral vaccine (against the three poliovirus serotypes) to the bivalent OPV was recommended by the World Health Organization (WHO) in 2018. The WHO's guidance advises current that countries gradually replace OPV with IPV. "The inactivated vaccine is the only one that is going to provide protection against the three serotypes of the virus. Several Latin American countries already use just the inactivated vaccine. In Europe, the oral vaccine hasn't been used for many years, said Falleiros. The switch is warranted, she explained, to prevent an uncommon adverse event in which the live attenuated virus mutates in a human host and becomes active again. Although this is very rare, specialists fear that as vaccination coverage falls, reactivation will increase, and vulnerable children will be more likely to come into contact with the virus.

Global Cases of Wild Poliovirus

In January, there were two recorded cases of wild poliovirus in the world: one in Pakistan and the other in Afghanistan. "In 2020, there were 63 cases," said Cunha. Five of six WHO regions are now certified as being free of the wild poliovirus, according to the Global Update issued by the Global Polio Eradication Initiative.

Brazil At Risk For Reintroduction Of Polio (cont'd from p22)

Brazil saw its last case in 1989, and the Americas received certification of polio eradication in 1994.

However, a new challenge emerged in 2019, according to the update: a growing public health emergency due to circulating vaccine-derived poliovirus type 2 (cVDPV2). In August 2020, 323 cases of cVDPV2 and 84 environmental samples positive for cVDPV2 were reported by 20 countries, most of them in Africa, but including Afghanistan, Pakistan, and the Philippines.

As soon as poliovirus — whether wild or vaccine-reactivated — starts to circulate, the low vaccination coverage could bring about the reintroduction of the disease. "It took us almost 50 years to eliminate measles. Due to low vaccination



coverage, it came back in two. There hasn't been a case of polio in Brazil for 30 years. It is hard to imagine that this disease could come back because of low vaccination coverage. We have to vaccinate our population, not only against polio, but against all diseases for which vaccines are available," said Cunha.

Polio Leaves Ukraine Toddler Paralysed

Source: medicalxpress.com — 6 October 2021

An 18-month-old child has been left paralysed after contracting polio in Ukraine in a new case linked to low vaccination rates in the country, the health ministry said Wednesday.

The ministry said vaccine-derived poliovirus type 2 caused the disease as opposed to the original wild virus.

"The parents deliberately refused vaccinations because of their <u>religious beliefs</u>," the statement said without providing further details of the case in the northwestern region of Rivne.

A team of epidemiologists was working in the region—where less than 49 percent of children have been vaccinated against the virus—to collect more information about the case, the ministry said.

Outbreaks of vaccine-derived poliovirus have been reported in war zones and countries with poor quality health services and remain a risk to global efforts to eradicate the virus.

In 2015, two polio cases were confirmed in southwestern Ukraine, the first to be recorded in Europe since 2010. It took more than two years to eradicate the outbreak, the health ministry said.

The level of vaccinations against polio is "insufficient", the health ministry said on Wednesday. Only 53 percent of Ukrainian children under the age of one have been vaccinated against the disease in the first eight months of 2021.

Affecting mostly children under the age of five, polio can lead to irreversible paralysis. According to the World Health Organisation, the number of polio cases worldwide has decreased by more than 99 percent since 1988.



Polio This Week

Global Circulating Vaccine-derived Poliovirus (cVDPV) as of 30 November 2021

		AFP cases						Other sources (Human) ⁴								Other sources (Environment)						
	(Paralysis onset between 2016-2021)						(Collection between 2016-2021)							(Collection between 2016-2021)								
Country	2016	2017	2018	2019	П	2021	Onset of most recent case	2016	2017	2018	2019	2020	2021	most recent collection date	2016	2017	2018	2019	2020	2021	most recent collection date	
Madagascar					2	10	22-Aug-21						17	08-Aug-21			_			24	13-Sep-21	
Yemen				1	31	3	27-Mar-21				1			07-Jul-19								
Malaysia				3	1		14-Jan-20											12	9		13-Mar-20	
Philippines				2	-		28-Oct-19				1			31-Oct-19				14			28-Nov-19	
Myanmar Indonesia			1	6			09-Aug-19 27-Nov-18				6			21-Aug-19 13-Feb-19								
PNG			26				18-Oct-18			7				20-Sep-18			7				06-Nov-18	
Laos	3						11-Jan-16	5		<u> </u>				09-Feb-16							00-1404-10	
Total type 1	3	0	27	12	34	13		5	0	7	10	0	17		0	0	7	26	9	24		
Central African Republic				21	4		29-Oct-20				43	1		05-Oct-20				9	2	1	03-Nov-21	
Uganda																				2	02-Nov-21	
Nigeria	- 1		34	18	8	289	04-Oct-21	2 ²		53	18	8	112	28-Oct-21	- 1		44	64	5	160	09-Oct-21	
Ukraine						1	03-Sep-21						18	09-Oct-21								
Senegal						16	15-Aug-21						33	06-Oct-21					- 1	11	07-Sep-21	
Cameroon					7	2	21-Sep-21					4	1	08-Sep-21				4	9		29-Sep-20	
Gambia																				9	09-Sep-21	
Benin				8	3	3	08-May-21						2	08-Sep-21					5	1	22-Mar-21	
Mauritania													4	19-Jul-21						5	01-Sep-21	
Yemen						2	01-Sep-21															
DR Congo		22	20	88	81	11	27-Jun-21		19	15	29	95	5	19-Aug-21					1		29-Apr-20	
Niger			10	1	10	5	19-Aug-21			4	6	2	1	13-Aug-21					9		08-Dec-20	
Tajikistan					1	32	26-Jun-21						22	24-May-21						17	13-Aug-21	
Pakistan	1			22	135	8	23-Apr-21				14	2		11-Nov-20	4			40	135	35	11-Aug-21	
Guinea-Bissau						3	15-Jul-21						1	26-Jul-21								
Ethiopia				14	36	9	16-Jul-21				9	7		13-Oct-20				3	4		28-Dec-20	
Guinea					44	6	01-Apr-21					1		05-Sep-20					1	1	10-Jul-21	
Afghanistan					308	43	09-Jul-21					36	2	03-May-21					175	40	23-Jun-21	
Burkina Faso				1	65	2	09-Jun-21					12		19-Sep-20								
Egypt					ļ.,	_													1	10	08-Jun-21	
Sierra Leone					10	5	28-Feb-21					6	8	19-Mar-21						9	01-Jun-21	
Congo					2	2	10-Feb-21					2	_	12-Oct-20 21-Jan-21					7	2	01-Jun-21	
Liberia Complia			5	2	14	3	28-May-21 12-May-21				2	2	5	10-Nov-20		- 1	19	5	,	14	20-Apr-21	
Somalia South Sudan			6 ⁵	3	50	9	10-Apr-21				2	13	5	25-Feb-21		2	ıβ	5	27 6	1	23-May-21 01-Dec-20	
					50	9	10-Apr-21					19	,	23-reu-21					3	4		
Iran Kanua												1	2	25-Jan-21			1		- 5	1	20-Feb-21 13-Jan-21	
Kenya Côte d'Ivoire					63		18-Oct-20					24	2	01-Nov-20			-	7	93	1	23-Dec-20	
Mali					52		23-Dec-20					3						- /	4			
					59		18-Dec-20					11		15-Aug-20 01-Oct-20					14		29-Aug-20 09-Nov-20	
Sudan Chad				11	101		28-Nov-20				6	17		15-Oct-20				10	3		13-Mar-20	
Ghana				18	12		09-Mar-20				16	10		22-Feb-20				17	20		17-Sep-20	
Togo				8	9		03-May-20				1	9		09-Jul-20				11			11-3ep-20	
Angola				138	3		09-Feb-20				22	,		31-Oct-19				17			02-Dec-19	
Malaysia				.50	-		02 1 CO.EO							31 SW-13				3	5		04-Feb-20	
Philippines				12	1		15-Jan-20				6			23-Nov-19				19	4		16-Jan-20	
Zambia				2	† †		25-Nov-19				2			25-Nov-19				.,			TO YOU EV	
China				1			25-Apr-19				3			18-Aug-19			1				18-Apr-18	
Mozambique			1	'			21-Oct-18			2				17-Dec-18							10.140.10	
Syria		74	ٺ				21-Sep-17	13	66	-				12-Sep-17								
Total type 2	2	96	71	366	1078	452		3	85	74	177	285	221		5	2	65	198	536	320		
China												1		22-Jul-20						1	25-Jan-21	
Somalia			75				07-Sep-18			2		_		29-Jun-18			11				23-Aug-18	
Total type 3	0	0	7	0	0	0	5. 56p 10	0	0	2	0	1	0	EV VIII IV	0	0	11	0	0	1	20 / log 10	
Female (all sero type)	3	54	34	151		199		V		-	V	,	V		V	Ü	"		V	<u> </u>		
Male (all sero type)	2	42	70	215		265																
Gender Unknown				12	10	1																
						<u> </u>																



















