



## Polio Oz News

September 2021 – Spring Edition

### Lockdown Impact On Polio Survivors Survey

**By Michael Jackson**

*Polio Australia Clinical Educator*

On August 3<sup>rd</sup> a research article out of Turkey (Sahin et al.) was published in the journal European Neurology 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 link](#)). Much to my dismay, but not surprise, the neurological conditions included in the study did not include post-polio conditions.

The study was a multicentre, cross-sectional study of 577 patients who had a chronic neuromuscular diseases (CND). It included Parkinson's disease (PD), cerebrovascular disease (CVD), headache, multiple sclerosis, epilepsy, and polyneuropathy. The study looked at demographics, a quality of life form, and the Impact of Event Scale-Revised (IES-R) information. They concluded that lockdown causes variable posttraumatic stress and deterioration in the quality of life in those with CND.

Of most interest were their findings related to post-traumatic stress disorder (PTSD) in these populations in response to lockdowns, as measured by the IES-R.

In our 2020 and 2021 Zoom discussions with Australian polio survivors, mental health topics were brought up and discussed, including coping with the pandemic, access to care, unwanted changes in routine and exercise, and traumatic experiences within a personal history of polio. Additionally, in our late 2020 survey we had asked about impact of the pandemic (at large in 2020), and we found that 35% had negative experiences. These negatives were a mix of limited access to services, isolation and travel limitations, coping difficulty and changes in physical condition.

As we had not asked Australian polio survivors specifically about their responses to lockdown experiences, and the Turkish study had both posed this question and excluded polio survivors, we were prompted to investigate.

In Australia at the start of August, numerous states were in or had just been in a COVID lockdown. The timing was ideal to gather some data from our polio survivors. It was necessary to 'strike while the iron's hot' because the instrument of interest the Turkish article used (IES-R) has a 7-day window of validity.

Essentially, the IES-R needs to be filled out while the experience is relatively fresh in survey responders' minds. (See Demographics Chart on page 8)

Those polio survivors who were younger than 65 or who lived in a rural area were quite few in responding, and so it is unreasonable to draw conclusions from their minimal data points. QLD and NSW residents made up the majority (77%) of those who had recently experienced lockdowns and so had the greatest eligible respondents.

The non-PD conditions in the study by Sahin et al. had mean IES-R scores between 37 to 53 and were in the 'HIGH Group' – they all had considerably and statistically higher mean scores. PS mean scores were comparable to the 'LOW Group' of PD scores, and only slightly higher (mean scores of 27 vs 25).

While there is a low and high split between all these NMD conditions, they all had large percentages of respondents showing probable PTSD.

Sahin et al. used 30 as a cut off value for PTSD, as this had been suggested for the Turkish population from an earlier study. Higher scores (over 30) were deemed a "probable PTSD case" in their study of those with CND, and were therefore labelled PTSD (+).

Cont'd page 4

**Polio Australia**

Representing polio survivors

PO Box 2799  
North Parramatta NSW 1750  
Phone: +61 3 9016 7678  
contact@polioaustralia.org.au

President—Gillian Thomas OAM  
gillian@polioaustralia.org.au

Vice President—Gary Newton  
gary@polioaustralia.org.au

Secretary—Maryann Liethof  
maryann@polioaustralia.org.au

Treasurer—Alan Cameron  
alan@polioaustralia.org.au

Editor  
Maryann Liethof

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**“An optimist is the human personification of Spring”**  
~ Susan J Bissonette ~

**Polio Australia's Websites****Polio 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](http://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](http://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](http://www.australianpolioregister.org.au)

**Polio Australia**Honouring Australia's polio survivors - "We're Still Here!" 

Polio Australia's "We're Still Here" website is a hub for sharing people's stories, polio survivors in the media, polio awareness raising campaigns, events of interest, Rotary talks, and so much more. It is constantly being updated, so check in often.

[www.stillhere.org.au](http://www.stillhere.org.au)

## President's Report



**By Gillian Thomas OAM**  
President

I am happy to advise that I have now joined the ranks of the fully vaccinated against Covid-19. I live in Sydney, and with the number of Covid cases in NSW being so high, it was not a difficult decision to make.

However, life goes on, and we are currently gearing up for *Polio Awareness Month* in October. The Team has been doing a great job operating in this difficult climate. Whilst it is hard to make any travel-related commitments to mark the occasion, Steph Cantrill, Polio Australia's Community Programs Manager, has devised a plan which encourages people to contact their local councils, asking them to 'light up' as many significant places as possible in 'post-polio orange' to help raise awareness of the Late Effects of Polio. She is also getting "We're Still Here!" face masks produced. Both practical and awareness-raising! Read more about these activities on page 5.

Polio Australia's Clinical Health Educator, Michael Jackson, has also been busy conducting the

survey on page 1, as well as slipping in and out of states to facilitate education sessions between lockdowns—see page 4. All this has made for trying times, and challenges in meeting Polio Australia's Strategic Plan. However, the Team's dedication, flexibility, and ingenuity has been laudable.

Paradoxically, for the first time since incorporation, Polio Australia's funding is looking secure for the next couple of years—with grants coming from both the philanthropic and Federal Government sectors—see page 7. Mark Coulton MP, one of Polio Australia's [Parliamentary Patrons](#), was instrumental in helping to secure the Federal Government grant. Although Mark has since lost his *Regional Health, Regional Communications and Local Government* portfolio following a front bench reshuffle earlier this year, his strong support of polio survivors remains.

Another Parliamentary Patron, Senator Rachel Siewert, is leaving parliament this month and we will be sad to see her go. Amongst other social justice campaigns and advocacy for the charities sector, Rachel strongly advocated that there be no age limit for the NDIS. We wish her well.

Polio Australia's Board Members have been in the news lately as well—see pages 11 to 13. In typical polio style, this virus won't stop us! 🍌

Gillian

## From The Editor



**By Maryann Liethof**  
Editor

Despite being in what seems like a never-ending lockdown in Melbourne, Spring has burst out all over to help make the world just that little bit brighter.

As with the last few issues of *Polio Oz News*, I have included a variety of articles on Covid-19 from a range of angles. Not surprisingly, there is no shortage of support for vaccination amongst our post-polio community. As you will read on pages 12, 13 and 14, there are people who have been doing their utmost to encourage others to get immunised. This will help lift us all out of, what will soon become, the pandemic of the unvaccinated.

The inequity of the National Disability Insurance Scheme (NDIS) age 65 cut off has resulted in hardship for many older Australians, many of whom are polio survivors. Page 11 outlines the ongoing campaign to end the age discrimination.

If you're looking for a good story to read during lockdown—or just out of interest—then the two polio-related books profiled on page 10 might be worth a look.

As Australia's polio survivors are predominantly in the older demographic, it can be interesting to see what is happening around the world. Like the participation of younger athletes in the Paralympics in Tokyo (page 17), and body building/gym trainer, Birbal, in India (page 16). The Late Effects of Polio may be something to deal with in future, but it is hard not to celebrate their tenacity and positivity.

Two studies piqued my interest for this edition: one discussing the possibility of the polio vaccine being used to induce an immune response to SARS-CoV-2 (page 17); and how it may be more feasible to eradicate Covid-19 than polio (page 19). Special mention was made in relation to the second study regarding the "added impact of public health measures" such as the mandatory wearing of masks, etc.

Then there's Afghanistan (page 20). It has been impossible to avoid seeing the shocking scenes of devastation on the news, following the withdrawal of US and allied troops. However, as a country that has never eradicated polio, the 'new' regime poses an added challenge to achieving the global polio eradication quest.

Back in Melbourne, Australia, I am looking forward to warmer days ahead, and a time I can travel further than 5 kms from home! 🍌

Maryann

## 2021 Program Update: Clinical Practice Workshops



**By Michael Jackson**  
*Polio Australia Clinical Educator*

In 2021 to date, 13 in-person workshops were able to be delivered across several states (QLD, NSW/ACT and VIC) in the presence of shifting border restrictions and COVID outbreaks. Nine of the locations visited were hospitals, while the other four locations were private clinics.

Ten Zoom/online workshops were also completed in this period, being a mix of monthly Zoom workshops, two university workshops for pre-professionals, and one regional health district. In the last few months there has been increased interest from hosts of in-person workshops to simply switch to a Zoom workshop when an outbreak occurs, rather than reschedule.

In these 8 months we have reached 189 professionals through workshops. If we include the 35 GPs and 5 nurses from the May GPCE conference, our total reach is 129 professionals.

	CPWs In-Person (total)	CPW Attendees (total)	CPW Attendees (average)	ONLINE Zoom CPW (total)	ONLINE Attendees (total)	ONLINE Attendees (average)
2020 End	3	19	6	2	8	4
2021 YTD	13	114	9	11	83	8

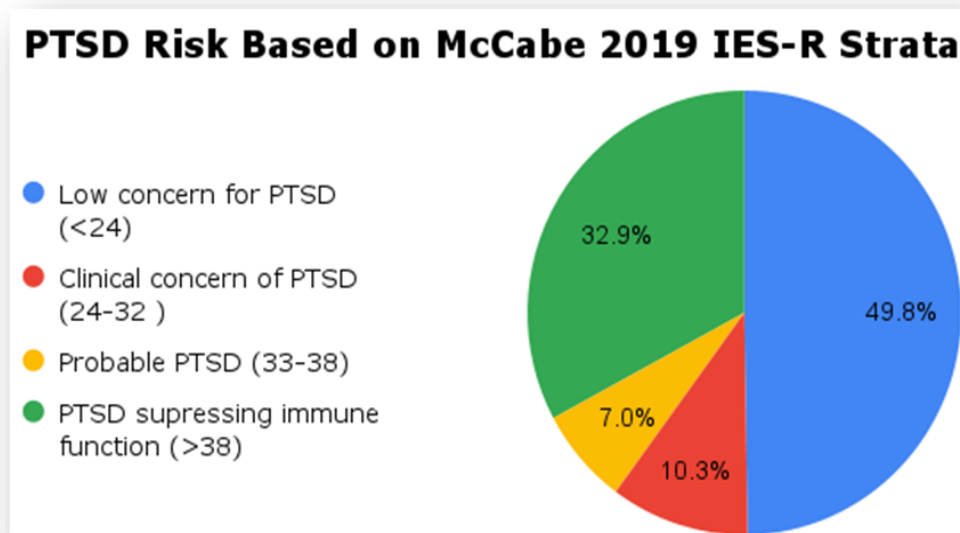
Our program benchmarks are to deliver 55 workshops per year, reaching 800 health professionals across Australia. While we are some distance to those targets, there has been a positive trend towards increased interest, scheduling, and participation in workshops this year. We have not yet been able to visit SA, WA or TAS yet this year, but do have 3 upcoming SA workshops on our schedule.

The majority of our attendees in 2021 have been physiotherapists (35%), occupational therapists (24%), allied health assistants (8%), and exercise physiologists (4%).

The RSMANZ Virtual Conference was held on 31<sup>st</sup> July and I presented the recently published research paper on Polio Survivors and Exercise to the mixed rehabilitation professionals audience. The AAG conference being held at the Gold Coast in-person, and scheduled in early November, remains on the calendar. We are also scheduled to present the paper at that event. 📍

### Lockdown Impact On Polio Survivors Survey *(cont'd from p1)*

A Rory Meyers College of Nursing (New York University) review of the IES-R by McCabe in 2019 offered interpretations based on PTSD thresholds identified in other's work. Using those thresholds and definitions, polio survivors responding to our survey were as follows:



## Community Programs Update



**By Steph Cantrill**  
Community Programs  
Manager

As I sit here in Melbourne, which is under lockdown orders once again, I reflect on all the challenges that have presented themselves over the past 18 months. It's been great to see the way that many people in our community

have been able to adapt in spite of all the difficulties, but I know it hasn't been easy. My thoughts are with those who are isolated, concerned about potential exposures to COVID-19, or restricted from their usual activities or services.

### Community Information Sessions

As you may expect, we remain unable to conduct in-person information sessions, so we are still meeting on Zoom. We know it's not everyone's cup of tea, and we do apologise for that. However, for some it's been a blessing as there's no need to travel and you can connect with people all over the country.

**Monthly Zoom sessions:** we continue to meet monthly on Zoom. Join us any time – it's a great way to connect and learn from others! Our recent chat about people's favourite gadgets really got people talking, but really the conversation is interesting each time. First Monday of every month at 11.00am Australian Eastern Standard Time (AEST).

**NDIS Zoom chats:** these have been really valuable for shared learning and support. Our next chat for polio survivors who are either on the NDIS or believe they meet the eligibility criteria will be on Wednesday 1<sup>st</sup> September at 11.00am AEST.

**My Aged Care: Home Care Packages chats:** following the success of NDIS chats, we've decided to trial a similar theme for those who have a Home Care Package, those who have applied and are waiting, and those who are thinking about it. Polio Australia is facilitating these chats – but you will be each other's experts, based on your own experience. Our first chat will be Wednesday 8<sup>th</sup> September at 2.00pm AEST.

**Webinars:** we have two confirmed upcoming webinars/other chats:

- Staying clear and strong when communicating with healthcare providers and other services, with Liz Telford OAM – October (*exact date TBA*).

- Information and resources for carers with a representative from National Carer Gateway – Monday 27<sup>th</sup> September at 11.00am (AEST).
- Others not yet confirmed include demonstrations of smart home tech and creative equipment solutions.

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

[www.polioaustralia.org.au/community-information-sessions](http://www.polioaustralia.org.au/community-information-sessions)

### Resources

**NDIS factsheets:** these are being redeveloped. The first two, titled "What is the NDIS?" and "How to Apply for the NDIS" will be available soon at:

[www.polioaustralia.org.au/services-ndis](http://www.polioaustralia.org.au/services-ndis)

**Blog:** we now have a [blog](#)! The latest posts include a Clinical Practice Workshop update and a summary of an assistive technology expo.

### Advocacy/Awareness-Raising And Lobbying

**Access to in-person health services:** due to Covid lockdowns and restrictions, many people have been unable to access their usual services. For some with progressive post-polio conditions, this has meant a significant decline in mobility and movement. We are working on a position paper calling for access to in-person services, where required, for those with progressive conditions.

**NDIS exclusion:** we support Spinal Life Australia's [Disability Doesn't Discriminate](#) campaign, and congratulate them on reaching almost 19,000 signatories to the petition (at the time of writing). We absolutely agree that all people with disability should have access to the care and support they need, no matter what their age.

**Assistive Technology for All:** a range of campaign materials are nearing completion with the [ATFA](#) Alliance. We will keep you informed about how you can get involved in advocating for fairer access to assistive technology for those outside the NDIS. This is concurrent with our support of the *Disability Doesn't Discriminate* campaign.

**NDIS Independent Assessments:** Polio Australia contributed to submissions with two of our networks – the Neurological Alliance of Australia and the Australian Federation of Disability Organisations. Both of these submissions can be viewed [here](#). We are very pleased to hear that, without a transparent and collaborative plan in place, these assessments have been scrapped for now. Advocacy in action!

## Community Programs Update *(cont'd from p5)*

**Accessible housing:** speaking of successful lobbying, we are happy to hear that the campaign to ensure mandatory minimum accessibility standards was successful! However, there are still some states who have not yet committed to implementing the new National Construction Code. Polio Australia has joined the [Building Better Homes](#) campaign – visit their website to see how you can get involved.

**Polio Awareness Month 2021:** with the help of a small committee, we're finalising plans for Polio Awareness Month. Activities will include "We're Still Here!" masks, a Facebook awareness campaign, and orange lighting in various landmarks around the country. See our lighting template to get involved – and you might even go into the draw to win a prize!

**Don't forget** – if you're on social media, stay connected! We regularly update our [Facebook page](#) with news and information. And our [Polio Australia group](#) is a platform for you to share news and ask questions. We also have the [NDIS Hub Facebook group](#) for the younger ones. Come and join us!

And, if that just isn't enough social media for you, you can always view our videos on our [YouTube channel](#), and follow us on [Twitter](#).



Help us raise awareness of polio and its late effects by contacting your local council or a landmark in your city or town. We can't say for sure just yet, but you just *MIGHT* go into a draw to win a prize!

To help raise the "**We're Still Here!**" message – that tens of thousands of polio survivors are still here and living with polio's late effects – we're lighting as many landmarks as we can in **orange** during the second week of October.

If you'd like to write a letter or email to your local council or other relevant authority, we have provided a template on page 23 which can be copied and pasted, with your relevant details in the highlighted sections. Some councils or buildings will also have an online form. If so, you can just copy and paste the relevant text.

Please [let us know](#) who you've contacted, so we know just how **orange** Australia is going to be. And, hypothetically, so we know who goes into the prize draw!

**POLIO AWARENESS MONTH 2021**

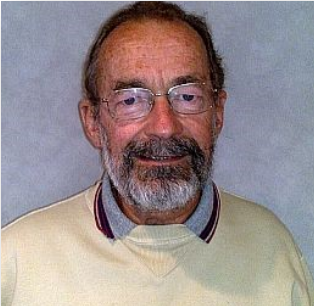
- LIGHTING ORANGE
- MEDIA/SOCIAL MEDIA CAMPAIGN
- FACE MASKS
- SHARE YOUR STORY!

 **#WereStillHere**  
[www.polioaustralia.org.au/polio-awareness-month](http://www.polioaustralia.org.au/polio-awareness-month)

## Treasurer's Report

Polio Australia would like to thank both individuals and organisations for their generous support of **\$20,485** during the third quarter of 2021. Be assured that 100% of these tax-deductible 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/](http://www.polioaustralia.org.au/donations-bequests/) or contact the Polio Australia office on Ph: 03 9016 7678 or Email: [contact@polioaustralia.org.au](mailto:contact@polioaustralia.org.au).



**By Alan Cameron**  
Treasurer

Since we have passed financial year end it is timely to give a quick summation of our position on both revenue and expenses. Please note that my comments relate to the unaudited figures so I'll be dealing only in the rough numbers that may yet need more work. A full report on the Audited results will be provided with the Annual Report.

The result for the year has been very much complicated, and supported, by the receipt of Job Keeper and Cash Boost contributions from the Federal Government, which hopefully will not need to be repeated. As suggested likely in the previous report, we did indeed reach year end showing a surplus, which is encouraging and, furthermore, there is an expectation that it will be sustainable in the short to medium term.

During the twelve months, during which work was largely performed on a 'work from home' basis, it became clear that with staff in four states, it was unnecessary to maintain a physical office located in Kew, Victoria. The office closure has resulted in ongoing cost savings.

We look forward to further stabilising and growing the organisation over the next 12 months. 🌟

 **Ministers**  
Department of Health

### Continuing support for Australia's polio survivors

More than \$400,000 has been invested by the Federal Government to continue support for polio survivors who have life-long impacts from the disease.

**Date published:**  
2 June 2021

**Media type:**  
Media release

**Audience:**  
General public

More than \$400,000 has been invested by the Federal Government to continue support for polio survivors who have life-long impacts from the disease.

Tens of thousands of Australians survived the infection, and now endure the debilitating neurological condition, Late Effects of Polio (LEOP)/Post-Polio Syndrome (PPS).

Regional Health Minister and co-chair of the Parliamentary Friends of Polio Survivors, Mark Coulton said Australia had been declared free from new polio infections since 2000.

"Most polio survivors are now aged over 50, and LEOP or PPS can have significant and debilitating impacts on their lives," Minister Coulton said.

"Australians are fortunate that the successful polio vaccine was incorporated into our Australian National Immunisation Program in 1975. Within 25 years we had eradicated the deadly and disabling disease from our shores.

"We want to ensure the Australian survivors are supported to live fulfilling and healthy lives, so we have provided more than \$400,000 to continue Polio Australia's Community Information Program."

Minister Coulton said the program helps polio survivors to identify and better understand their condition, and the available strategies to manage that condition.

Gillian Thomas, national president of Polio Australia and a survivor of polio herself, said after a successful trial of community programs on a smaller scale, Polio Australia is thrilled to have the opportunity to increase its reach to the polio community across the country.

"Many people who had polio are unaware that symptoms they are now experiencing relate directly to that childhood infection. And they don't know who to see or what they can do to manage their own condition," Ms Thomas said.

"Our Community Information Sessions, printable resources and online engagement can help to bridge that gap."

### *Funding Boost!*

Thank you for your application for funding through Perpetual's 2021 IMPACT Philanthropy Application Program.

We are pleased to inform you that Polio Australia has been successful in receiving funding of **\$91,485** for *Polio Australia Community Programs: Facilitating connection and shared learning among the post-polio community in Australia.*

Funding has been provided on behalf of the Lionel & Yvonne Spencer Trust.

Congratulations on receiving this grant. Perpetual is honoured to assist our clients in providing funding to organisations that align to the areas they wish to support through their philanthropy.

## Lockdown Impact On Polio Survivors Survey *(cont'd from p4)*

Applying Sahin et al. and McCabe's interpretations to our survey would suggest that 40-45% of those polio survivors who completed the IES-R are likely to have PTSD symptoms related to their lockdown experiences. While this appears high, it is considerably lower than other CNDs studied, and comparable to those with PD.

It is important to note that the IES-R thresholds used apply to different health condition populations, from different cultures than Australian polio survivors. In addition, our respondents were not oriented to the scale by their neurologist (like those in Sahin et al.).

In our Zoom discussions, a number of polio survivors talked about difficulty coping with some aspect of their life. They used a range of strategies to manage this including delegating tasks to ease the load, or seeking professional help such as counselling or psychology. Difficulty coping is a mental health issue, and this

lockdown survey highlights the challenges that many people face. It's important to seek appropriate support.

If you were a respondent to this survey and you recall choosing greater than 2 on most of your answers, and you recognise lingering difficulties related to being in lockdown, it is recommended that you follow up with your GP.

It is important for you to mention any concerns to your GP about coping with lockdown. *"At-risk patients may not readily report PTSD symptoms, making it important for GPs to ask probing questions, use screening tools and raise the possibility of PTSD."* ([Source](#))

In a future *Polio Oz News* I will return to this survey to examine aspects such as the IES-R subscale results, and other comparisons with the Sahin et al. study. 🌟

### Demographics Chart *(from Page 1)*

Below are the demographics and preliminary results from our polio survivors (respondents = 213, as of 24-8-21)

IES-R Polio Survivor (PS) respondents	Females 58%
	Males 42%
Age of respondents	<65 years 7%
	>64 years 93%
Metropolitan resident	62%
Regional town or city resident	32%
Rural resident	6%
State of residence where they experienced the lockdown	NSW 32%
	QLD 45%
	SA 11%
HIGH group = CVD (IES-R mean 53)	PS are much lower (mean 27)
LOW group = PD (IES-R mean 25)	Comparable to PS (mean 27)
PTSD (+) [Sahin et al. rated as >29]	45% of PS
PTSD (-) [Sahin et al. rated as <30]	55% of PS





## Questions And Answers—New Feature!

**This new Q & A page is the first in what we hope to be a regular feature in *Polio Oz News*.**

Please send in your polio-related questions to [team@polioaustralia.org.au](mailto:team@polioaustralia.org.au) and we will do our best to source the most validated answers for you from the Team and/or other Late Effects of Polio experts.

**Note:** whilst your Q&A request will be responded to promptly by one of the Team, a maximum of two questions will appear in each edition of *Polio Oz News*. Additional Q&A responses may be included on Polio Australia's Facebook and/or groups pages.

### Question:

**Did Sister Kenny cure polio?**

– from *Wen (international)*

### Answer:

Thanks to Wen for submitting this interesting question. The short answer is, well, no. But let's look at this fascinating person in a bit more detail.

– by *Steph Cantrill, Community Programs Manager*

### Who was Sister Kenny?

Elizabeth (Lisa) Kenny (1880-1952) was born in New South Wales and grew up in the town of Nobby, Queensland. When Lisa was 17, she fell off a horse and broke her wrist. Her treatment and rehabilitation led to a keen interest in anatomy, especially in learning how muscles worked. The doctor in charge of her care became her mentor, and Lisa even made her own model skeleton to learn from.

Instead of jumping straight into nursing though, Lisa was certified as a teacher of religious instruction, then listed herself as a piano teacher as well. She moved back to NSW and worked as a broker of agricultural sales, and then got a job in the kitchen at a cottage hospital. With what she learned at the hospital, combined with her earlier training and a recommendation from the cottage hospital doctor, Lisa returned to Nobby and became a 'bush nurse'.

### Nursing career – beginnings

Nurse Kenny, as she was then known, started her nursing career in Nobby and then opened a cottage hospital in Clifton, near Toowoomba, in 1911. It was during this time that she believed she saw her first cases of "infantile paralysis" – now known as polio.

In 1915, she volunteered as a nurse in the First World War, despite not having an official nursing qualification. It was during her service that she earned the title 'Sister' by which she is now

famously known. In 1918, Sister Kenny returned to Nobby to look after patients infected with the Spanish flu. She also became the first president of the Nobby branch of the Country Women's Association. She later returned to NSW to care for the daughter of a childhood friend, who had Cerebral Palsy.



### Developing a new polio treatment

In 1931, Sister Kenny stayed with other friends for 18 months to nurse their niece, who had contracted polio. When the girl was able to walk, local newspapers began calling it a "cure". Over the next few years she worked with more and more children paralysed by polio, and set up various "Kenny Clinics" around the country.

Sister Kenny's treatment regime promoted passive muscle movement and heat. Her 'method' was quite different from the usual treatment of the period, which mostly involved immobilising affected limbs using casts and splints.

The Sister Kenny method wasn't universally accepted, with many doctors and the British Medical Association questioning her practices. She started to make enemies as well as friends in the medical field. However, it was in the United States that she found most support. Kenny Treatment Centres were established throughout America and her 'method' was used with hundreds of children recovering from polio. While some of her theories remained controversial, her principles for rehabilitation became the foundation for modern physiotherapy.

### No cure – but the vaccine has helped

Despite the significant recovery that many children experienced, the treatment was not a cure, as anyone who experiences Late Effects of Polio could tell you. To this day, polio does not have a cure. But it does have a powerful enemy: the vaccine. With both the Salk and Sabin vaccines in common use today, polio cases have reduced by 99% since 1988. With one last effort to ensure universal access to the vaccine, we could see polio eradicated from the globe. 🌐

### Sources

[https://en.wikipedia.org/wiki/Elizabeth\\_Kenny](https://en.wikipedia.org/wiki/Elizabeth_Kenny)  
<https://adb.anu.edu.au/biography/kenny-elizabeth-6934>  
<https://www.who.int/news-room/fact-sheets/detail/poliomyelitis>

## Books

**"No Spring Chicken: Stories and Advice from a Wild Handicapper on Aging and Disability"**  
— [www.amazon.com](http://www.amazon.com)



**Francine Falk-Allen** feels for people as they age. Most will develop some kind of disability, maybe several, or an impairment that will interfere with life as they've known it, even if just temporarily. To go from being able to disabled isn't always an easy transition.

Not to say that it's been easy for Falk-Allen, but being disabled is all she remembers. The San Rafael resident contracted polio when she was barely 3 years old, and emerged from six months in a rehab hospital with a permanently paralyzed foot and a partially paralyzed leg.

It did not stop her from much, and she doesn't want disabilities to stop others, which is why she wrote *"No Spring Chicken: Stories and Advice from a Wild Handicapper on Aging and Disability"*. Filled with stories of her numerous travels across the country and world, as well as advice for the newly and future disabled, and the people who love them, her book taps into the resiliency of "crips" — a cheeky term many in the disabled community have embraced — to help others.

*"It can be harder on a person who suddenly has physical difficulties when you've had a lifetime of able-bodiedness. For those of us who have had handicaps or disabilities most of our lives, we've had a lot of time to adapt to it. We have more tricks and tips so I thought I have all this information, let me see if I can put it in a book and make it appealing"*, says Falk-Allen.

It's a companion to her award-winning first book, *"Not a Poster Child: Living Well with a Disability, a Memoir"*, published in 2018, and written with the same sass, practicality and boldness.

Read full article [here](#).

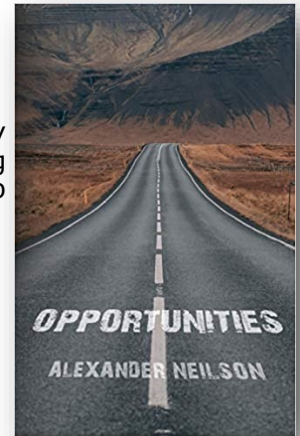
**Opportunities**  
by Alexander Neilson  
— [www.amazon.com.au](http://www.amazon.com.au)

Asha is one of India's many polio victims, with nothing better than a pole to hop around his native Nagpur.

Fate takes a hand in the form of Robert, [Australian] businessman and philanthropist. Father of a disabled child, Robert is motivated to help — with polio uppermost in his mind. Robert offers to fund an operation that could change Asha's life in ways he cannot imagine.

For a new life brings new challenges. Able to attend university in a foreign land, will Asha land on his feet now he can walk, or will he stumble in his studies, slip up when socialising, fall flat in wheelchair sports and be wrong-footed by racial prejudice?

To see how far a handicapped person can go in life, and how near and yet how far life with a disability compares to that of the able-bodied, *Opportunities* will open eyes as well as hearts.



## Pain Awareness Month

[www.painaustralia.org.au](http://www.painaustralia.org.au)

**September** marks Pain Awareness Month hosted by the [International Association for the Study of Pain \(IASP\)](#). Ideally, this month will spark more conversations and understanding about pain between health professionals, people living with pain, policy makers and the wider community.

To mark Pain Awareness Month, Painaustralia will release a series of educational materials, including factsheets, blogs, online videos, and host a webinar to raise awareness of the reality of living with chronic pain.

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## Campaign To End NDIS Age Discrimination

### 'Morally wrong and unfair': Campaign to end NDIS 'age discrimination'

By Jewel Topsfield

Source: [www.smh.com.au](http://www.smh.com.au)—17 July 2021

Peter Freckleton contracted polio during Australia's last polio epidemic in the 1950s.

Dr Freckleton, 74, said he grew up feeling like a freak. "If I did go out at times, kids would burst into laughter behind me as I passed: 'That man walks funny!'"

"First of all I was totally paralysed and then I got my upper body strength back but I had to wear callipers and crutches all my life and then a wheelchair later on."

When the federal government introduced the National Disability Insurance Scheme in 2013, he hoped he would finally receive the support and equipment he needed to have a fully active life.

But to his dismay he discovered he was not eligible because he had already turned 65.

In Victoria, where the NDIS was rolled out from 2016, anyone born after 1952 was eligible for the scheme, whereas someone with the same disability born before 1952 was not.

"It's so arbitrary – you are banned because you happened to have your birthday at the wrong time," Dr Freckleton said. "It's not only morally wrong and unfair but it's a breach of the UN Convention on the Rights of Persons with Disabilities, which prohibits discrimination against people with disabilities on all grounds."

Also excluded from the NDIS are people who become disabled after they turn 65. They, like Dr Freckleton, are forced to rely on the aged care system, which provides much less funding and access to specialised care, aids, equipment and therapy.

Spinal Life Australia – backed by other disability groups including Polio Australia and Muscular Dystrophy Foundation Australia – has launched a [TV advertising campaign](#) calling on the federal government to stop age discrimination against people with a disability over the age of 65.

It says a person over 65 who has a spinal cord injury receives \$52,000 a year under My Aged Care compared with \$165,600 under the NDIS.

The campaign comes amid [warnings](#) from NDIS Minister Linda Reynolds that the scheme faces serious sustainability issues, with expenditure forecast to grow to \$40.7 billion in 2024-25, \$8.8 billion above estimates.

Senator Reynolds said the design of the scheme reflected the [Productivity Commission's recommendation](#) that a person needed to have



Photo: Dr Peter Freckleton and Post Polio Victoria president Shirley Glance  
Credit: Eddie Jim

acquired their disability and requested access to the scheme before the age of 65 in order to become an NDIS participant.

"The legislation put forward by the Gillard government in 2012 to establish the NDIS, with bipartisan support, reflects the Productivity Commission's recommendation," she told *The Age* and *The Sydney Morning Herald*.

"The government supports these longstanding policy settings. The NDIS is not intended to replace services already provided through the health or aged care systems."

The Productivity Commission also [recommended](#) the establishment of a separate National Injury Insurance Scheme, to be funded by the states, which would cover people who had been catastrophically injured. This would reduce the cost to the NDIS, but has not been fully implemented.

Senator Reynolds did not respond to a question on whether the government had done any costing on removing the 65 age limit.

Last year Richard Colbeck, the Minister for Senior Australians and Aged Care Services, [told ABC TV's 7.30](#) it was not a piece of research he had seen.

However, given 1.9 million Australians over 65 have a disability, according to the [Australian Bureau of Statistics](#), and the [average payment to NDIS participants was \\$53,200 in 2020-2021](#), removing the age cap would cost the scheme billions.

(The 1.9 million figure includes people with a disability who were NDIS participants before they turned 65 and can remain on the scheme.)

## Campaign To End NDIS Age Discrimination *(cont'd from p11)*

Elizabeth Kendall, a professor of disability at Griffith University, said the cost of removing the age cap needs to be offset against the cost of aged care.

*"As people age, the consequences of disability can become more profound and the impact of inadequate or insufficient care can mean more frequent costly hospital admissions caused by urinary tract infections, skin problems, respiratory problems and so forth," she said.*

*"It may also mean earlier transition to residential aged care, which is far more costly."*

Last year's royal commission into aged care recommended that by July 1, 2024, every person receiving aged care who is living with disability – regardless of when it occurs – should receive the same level of support they would be entitled to under the NDIS.

*"It is a matter of equity," [the royal commission report](#) said.*

In its [response](#) in May, the federal government said the recommendation was subject to further consideration, with work to develop a new support-at-home program to be completed by the end of next year.

The government said it would take into consideration the level of support available to people in aged care, including those who would otherwise be eligible for the NDIS but for the age criteria.

The [Disability Doesn't Discriminate](#) campaign calls on people to write to their federal MP asking them to remove the age limit for the NDIS or adopt the royal commission recommendation.

Spinal Life chief executive Mark Townend said in a few months the campaign would ask all MPs where they stand.

In 2019 independent MP Zali Steggall presented Parliament with a [petition](#) with almost 20,000 signatures calling on the government to extend the NDIS beyond 65 or improve the aged care system.

Opposition NDIS spokesman Bill Shorten said when the NDIS was being set up the aged care system offered much greater support, so the NDIS filled the gap for people with disability under 65.

*"But, after eight years of the Coalition's neglect of aged care, the NDIS – even though it has its problems – is now superior when compared with aged care packages," he said.*

*"Labor believes people should get the care they need no matter how old they are."*

**Editor's Note:** Peter Freckleton is Post Polio Victoria's representative on the Board of Polio Australia.

## What Happens Without Vaccination

### Polio survivor: 'I know from experience' what happens without vaccination

Source: [www.skynews.com.au](http://www.skynews.com.au)—23 June 2021

A Melbourne polio survivor is furious many people are hesitant about having the COVID-19 vaccine after he contracted the disease at just two years old in 1953, three years before the Salk vaccine was made available.



## The Polio Survivors Encouraging Vaccination

### Meet the polio survivors urging Australians to get vaccinated against COVID-19

By Jacquelin Robson and Pip Christmass

Source: [7news](#)—8 July 2021

Polio survivors have told of the terrifying years when the highly contagious virus was crippling children and spreading across the globe. They have shared their story as a cautionary tale, hoping to inspire more people to get vaccinated against **COVID**.

For survivors of polio, the coronavirus pandemic brings back unsettling memories. From 1944 to 1955, polio killed more than 1,000 people in Australia, while hundreds of thousands survived.

Like COVID-19, poliomyelitis also a highly infectious viral disease. Polio typically spread through dirty water, invading the nervous system – mainly of children.

Jenny Jones was five years old when she contracted the disease. She'd missed out on getting the polio vaccine by five weeks. "I was a very active, healthy strong girl," she said. "I ended up in hospital for eight weeks, I couldn't walk when I came out, I missed most of year one (at school)."

Polio outbreaks came in waves, usually in the summer. Ian Holding caught the virus as a toddler, leaving his father terrified.

"He was sitting in a waiting room with a child of two that couldn't stand up," Ian said. "It upset him a lot. We weren't allowed to visit anyone, but dad was still allowed to go to work."

The first polio vaccine was developed in 1955. As it began to make its way around the globe, polio was eradicated.

"A van went around the schools and you all lined up," Jenny Jones recalled.

"It went from 399 cases a year to two a year, so the impact of that vaccination was enormous," Ian Holding added.

But even then people needed convincing – as they do now. 🌐

Full article here: <https://7news.com.au/lifestyle/health-wellbeing/meet-the-polio-survivors-urging-australians-to-get-vaccinated-against-covid-19-c-3346597>

**Editor's Note:** Both Jenny Jones and Ian Holding are Polio WA's representatives on the Board of Polio Australia.



Photo: Jenny Jones and Ian Holding both had polio as children. Credit: 7NEWS

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## No Concept Of How Awful It Was

### 'No concept of how awful it was': the forgotten world of pre-vaccine childhood in Australia

By Meg Keneally

Source: [www.theguardian.com](http://www.theguardian.com)  
—15 August 2021

Until relatively recently, lethal infectious diseases stalked the lives of Australian children – including my father, Tom Keneally. Vaccines have saved millions.

It's 1940, and a five-year-old boy lies in an oxygen tent. He struggles for breath and hallucinates that his leaden toy soldiers are alive and marching around the room, monsterring him with their bayonets.

He has diphtheria, a disease also known as *The Strangling Angel*. There is a vaccine, but not every child has been inoculated. The bacterial infection creates a membrane across the back of the throat, cutting off air supply.

The little boy's mother, sitting a desperate vigil next to the oxygen tent, has seen diphtheria take other children.

It will not, in the end, take her son. The membrane will fail to fully close off his airway, and he will emerge from the oxygen tent. He will attend the funerals of classmates who die of diphtheria and polio. He will, in time, run alongside his friend, a fine athlete born blind after his mother contracted rubella during pregnancy. He will rattle a stone in a can to guide his friend to the finish line.

Throughout his schooling, children he knows will die from disease. He will, through luck, survive. He is still alive now, at the age of 85. He's my father, and his name is Tom Keneally.

*"One of the brothers (the Christian Brothers of St Patrick's College in Sydney's Strathfield) would come into the classroom from time to time and tell us someone had died," Keneally said. "We would say a decade of the Rosary for them, and the brother would say that God takes the best children, and I would be relieved I wasn't one of those. It didn't feel like an ever-present threat as kids because we were just living our lives, although I think for our parents it was always there, that possibility."*

Shortly after birth, Australian children are vaccinated against hepatitis B. Between six weeks and 18 months of age, they receive vaccines against a range of diseases including diphtheria, tetanus, pertussis (whooping cough), pneumococcal disease, meningococcal disease, measles, mumps, rubella, polio, *Haemophilus influenzae* type b (Hib), rotavirus and varicella (chickenpox).

Some vaccines can also protect against certain cancers later in life. As Prof Raina MacIntyre, head of the Biosecurity Research Program at the Kirby Institute and professor of global biosecurity at the University of NSW points out, the hepatitis B vaccine protects against liver cancer, while human papillomavirus vaccine guards against cervical and penile cancer.

*"People don't remember the gains we've made,"* McIntyre says. *"In the 19th century, the leading cause of death in children was infectious disease. People would have 10 children and might lose five of them. We lived with high rates of infant mortality,"* she says.

As well as two world wars, Australians in the first half of the 20th century had a Spanish flu pandemic and a bubonic plague outbreak to contend with, along with numerous spot-fires of disease.

The lethal diseases that routinely beset the population – such as the choking diphtheria, the crippling polio, the wracking tetanus – made childhood precarious.

[One in 30 children died](#) from gastroenteritis, diphtheria, scarlet fever, whooping cough and measles in 1911. In 1907, infectious diseases killed more than 300 people in every 100,000, according to data from the [Australian Institute of Health and Welfare](#). By 2019, that number had dropped to around 10.

To modern parents, disease names like polio and smallpox and diphtheria have been relegated by vaccination to arcane words with no practical relevance. But while these cruel diseases no longer kill Australian children, experts say there may be a risk of lapsing into complacency.

*"The visibility of the ravages of polio, and the fact that most people knew someone who'd had a child die were really powerful drivers, people were desperate for vaccines,"* says David Isaacs, clinical professor in paediatric infectious diseases at the University of Sydney, and author of [Defeating the Ministers of Death – The Compelling History of Vaccination](#). *"Many younger people have no concept now of how awful it was."*

Tom Keneally's diphtheria infection was not to be his last childhood spell in hospital. In 1944 he lay recovering from pneumonia near a boy in an iron lung, suffering from polio. The boy was studying for the Leaving Certificate, the forerunner of the HSC.

*"He had a bracket above his head that textbooks could be slid into, and I remember him studying Hamlet,"* Keneally says. *"His mother was always there, turning pages and changing books, and that's how he studied."*

## No Concept Of How Awful It Was *(cont'd from p14)*

Sometime later, he learned the boy had died when a power cut rendered his iron lung useless.

Dr Peter Hobbins, a medical historian at the Australian National Maritime Museum, says polio was still killing children into the 1950s.

*"It was a reality of life in Australia. A lot of people don't realise how many diseases were rampant until relatively recently. There's a reduced visibility of the consequences of these diseases, people don't appreciate the fear parents felt of sending a child to school and possibly having them not come back into the family," he says. "Thankfully we are not seeing new cases of polio, but there are still people living with the consequences of the disease, and they feel forgotten."*

Not that there weren't triumphs, notably the eradication of smallpox, which Isaacs says killed up to one in three babies in the London of the 18th and early 19th centuries. A campaign by the [World Health Organization](#), starting in 1967, saw it wiped out by 1980.

The first smallpox vaccinations in Australia were given in the early 1800s. That was no good to the people of the Eora nation. In 1789, a disease believed to be smallpox was introduced by the colonists. It tore through the Aboriginal population of Sydney, [killing up to 70%](#).

While smallpox is no longer a threat, MacIntyre warns that diseases we have almost forgotten can easily return if vaccination rates slip.

*"One example is the fall of the Soviet Union," she says. "There were good vaccination programs, and then when the Soviet Union fell, many stopped being conducted."*

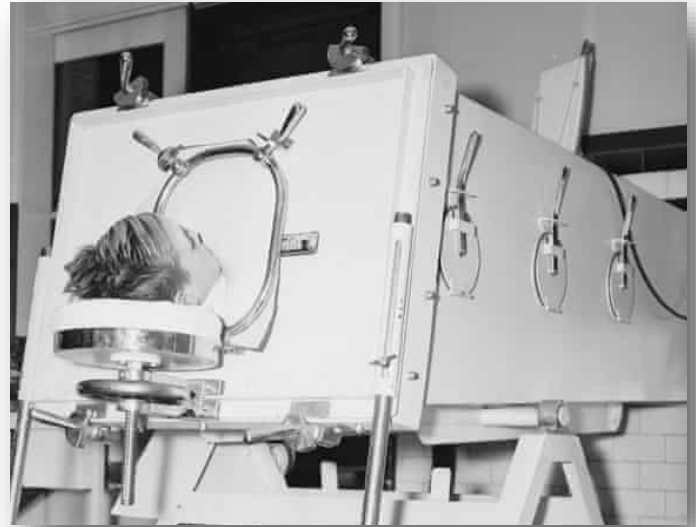
As a result, cases of diphtheria, which had been almost unheard of due to vaccination, reached 140,000, and the disease killed 4,000 children and young adults.

*"If we stopped vaccinating against diphtheria here, we would see the same," MacIntyre says.*

Despite their life-saving properties, vaccines have often been greeted with suspicion. Hobbins says a tragedy in 1928 had an impact on diphtheria vaccination rates – but it may also have ultimately increased vaccine safety.

*"It became known as the Bundaberg Tragedy, or the Serum Tragedy. A batch of diphtheria vaccine contaminated with *Staphylococcus aureus* was injected in high doses into 20 children, and 12 died," he says.*

*"An outbreak of diphtheria could potentially kill 12 children in 20, but that event set the course of vaccination back several years. But one consequence of the tragedy was a rise in manufacturing and quality testing standards,*



*A child lies in an iron lung at the Children's Hospital 20 May 1938. Photograph: Olson/State Library of NSW*

*which drastically reduced the risk of that vaccines might become contaminated."*

While vaccine mandates are sometimes raised as a counter to vaccine hesitancy, they can backfire. In [Defeating the Ministers of Death](#), Isaacs writes of 80,000-strong protests in the UK city of Leicester in the late 19th century, in response to a smallpox vaccine mandate.

*"I truly believe in negotiation and respecting people's intelligence, because vaccine hesitancy is not about intelligence. A lot of hesitancy is based on fear and misunderstanding, and we don't want to alienate people," he says. "Then you can sometimes bring people around if you've developed a close relationship, which is why I'm a firm believer in using GPs to get those messages out."*

Still, Australians are very supportive of childhood immunisation, he says. *"Our uptake of routine childhood immunisations is about 95%. That's enough to give you herd immunity, so that there's no endemic spread of measles at all."*

MacIntyre agrees. *"Australia has had high rates of vaccination. Anti-vaxxers are around 2%, which is not that much," she says. "It's not so much vaccine hesitancy as vaccine confusion [with Covid-19 vaccines]. I believe we can achieve good rates of vaccination [against Covid-19] in Australia."*

As for committed anti-vaxxers, Tom Keneally knows what he would like to do to try to shift their perspective. *"I'd like to take anti-vaxxers back in time to my childhood. There would be a story on every street which could change their minds."* ●

## Dr Anthony Fauci Interview With CNN

**Fauci says U.S. 'probably would still have polio' if there had been as much misinformation as with covid vaccines now**

By Joe Walsh, Forbes Staff

Source: [www.forbes.com](http://www.forbes.com)—17 July 2021

Amid sagging Covid-19 vaccination rates and stubborn levels of vaccine hesitancy, Dr. Anthony Fauci [Chief Medical Adviser to President Biden] told CNN the United States' successful campaigns to eradicate smallpox and polio in the last century wouldn't have succeeded if those vaccines were subject to the same level of misinformation that currently surrounds coronavirus vaccines.

### KEY FACTS

- In an interview with CNN, Fauci warned that some unvaccinated adults have been exposed to false information, are often sceptical of objective Covid-19 data and frequently justify their decision not to get vaccinated with "things that are really just not true."

## Polio No More A Crippling Fear For Him

**A gym trainer, Birbal is now teaching dynamics of fitness to others**

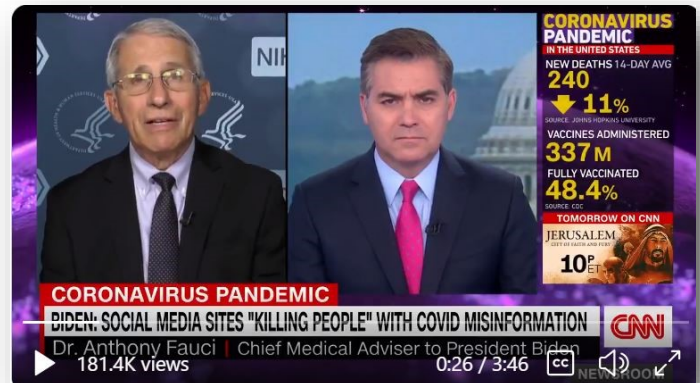
By Ajay Joshi

Source: [Tribune News Service](http://Tribune News Service)—16 July 2021



Birbal was diagnosed with polio at the age of five due to lack of proper medical facilities in his village. The unavailability of proper treatment crippled him for his entire life. He suffered a major setback early in his life but was always keen on moving on and complete his education despite his disability. However, constant slurs from peers forced him to drop out of the school. What remained constant throughout his growing years was his zeal to become independent and support his family.

Now, 31, Birbal took to body building in 2004 to shape up his career and body. "I had just entered my teens when I started working on my physique. The idea initially was to have an



- After anchor Jim Acosta compared the situation to polio, the government's top infectious disease expert offered a dire warning: Fauci said efforts to eliminate smallpox (which was eradicated worldwide over 40 years ago) and polio (which has been eliminated in almost every country) would have faltered under the current climate of misinformation. 🌐

*enviable body despite my inability to use legs. I didn't want this to be any kind of hurdle in my dreams. With time, bodybuilding became my passion and within a few years, I started participating in several body-building championships. I believe, it is easy to give up and blame circumstances for one's shortcomings, but the joy of achieving something is only felt when you persevere through life to overcome difficulties. This joy comes with hardwork and sacrifice,"* said, Birbal, a resident of Lidhran village, near Suranussi.

Being the eldest among his siblings, he says, his parents started worrying when he was diagnosed with polio. Wrong medication by doctors further made him miserable and he couldn't grow normally. Apart from following his passion, he used to do odd jobs to earn a living for himself. In the absence of any tricycle, he even had to crawl to move from one place to another.

*"To shed extra fat from my upper body, I used to crawl faster using my hands. The encouragement came from observing others. I made my mind stronger and thought, why not make optimum use of two hands gifted to me by God. When I turned 18, I participated in my first body-building competition and the journey forwarded from district to state level competitions,"* shares Birbal.

Now, standing tall with his list of achievements, Birbal is popular among budding fitness freaks as Billu Paji. It has been over five years, since he became a gym trainer and now rides an Activa [Honda scooter]. 🌐



## Polio At The Paralympics

**Source:** [www.polioeradication.org](http://www.polioeradication.org)

With the largest audience the Games have ever garnered, polio-affected athletes have joined the fight to end the disease which paralyzed them.

Footballer Dennis Ogbe of Nigeria is just one of some 25 athletes living with polio participating in events from wheelchair basketball to powerlifting at the Games. They come from countries as different and far-flung as the Great Britain, US, Nigeria, India and South Africa. Paralympians living with polio know well the full impact of the disease. Their own personal paths to reach the top of their sport at the global level is a powerful metaphor for the global fight to eradicate the disease.

*Paralympic athletes at the garden party sponsored by Rotary International, in association with UNICEF, the Bill & Melinda Gates Foundation, the British Pakistan Foundation, and the Global Poverty Project.*

Three such athletes were the stars at a garden party in London sponsored by Rotary International, in association with UNICEF, the Bill



& Melinda Gates Foundation, the British Pakistan Foundation, and the Global Poverty Project. The party capitalized on the excitement surrounding the opening day of the 2012 Paralympic Games on 30 August to rally government dignitaries from the United Kingdom and Pakistan to raise funds for Paralympic athletes and Rotary's PolioPlus program.

*"We wanted to celebrate the achievements of these amazing athletes and Rotary's hard work towards polio eradication," says Judith A. Diment, PolioPlus national advocacy adviser for the UK and a member of the Rotary Club of Windsor St. George, England. "Both groups have persevered through great odds to be where we're at today."*

The event raised thousands of dollars for PolioPlus and the Pakistani Paralympic Committee and advocated for a polio-free world. Wajid Shamsul Hasan, the High Commissioner of Pakistan to the United Kingdom, praised Rotary's efforts to eradicate polio in Pakistan and spoke about his government's commitment to step up resources to rid his country of the disease. ●

## Could Polio Vaccines Help Target SARS-CoV-2?

**Could polio vaccines induce cross-reactive antibodies that target SARS-CoV-2?**

By Dr. Liji Thomas, MD

**Source:** [www.news-medical.net](http://www.news-medical.net)—24 June 2021

Among the intriguing aspects of the current pandemic of coronavirus disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is the apparent selectivity of its pathogenicity. Young children are typically spared the severe or life-threatening features of infection, compared to adults over 60 years.

A new study led by researchers at Johns Hopkins University, USA, explores a link between immunity to SARS-CoV-2, the earlier SARS-CoV, and childhood poliovirus vaccination. Almost 90% of the world's people have received this vaccine, but antibodies elicited by it reduce over time and are almost absent at the end of adolescence.

*Study: [Poliovirus Vaccination Induces a Humoral Immune Response that Cross Reacts with SARS-CoV-2](#). A preprint version of the study is available on the *medRxiv*\* server, while the article undergoes peer review.*

### Background

Some earlier studies have shown that certain vaccines have cross-protective [efficacy](#) against not just the specific viruses based on which they were created, but on structurally similar viruses too. This is true of the poliovirus vaccine and the mumps vaccine, with one report indicating that the susceptibility to SARS-CoV-2, and COVID-19 severity, are inversely correlated with the titers of mumps antibodies.

Both the poliovirus and SARS-CoV-2 contain a single-stranded ribonucleic acid (RNA) molecule as their genetic material, and all proteins are directly translated off this template strand. During viral replication in both, the genome is replicated off this strand, using RNA-dependent-RNA-polymerase (RdRp) protein synthesized.

## Could Polio Vaccines Help ... (cont'd from p17)

The RdRp enzyme is fundamental in viral replication, and multiple screening attempts have been made to inhibit its activity and thus cripple the virus.

The researchers in this study explain, "*The structural similarities in the RdRp of all single-stranded, positive sense RNA viruses may explain the cross-reactivity of polio-immune serum with SARS-CoV-2 antigens.*"

Two types of polio vaccines have been used worldwide, one being the oral polio vaccine (OPV) which is a live attenuated vaccine, and the other an inactivated poliovirus vaccine (IPV). Concerns about the potential for reversion to wild-type paralytic poliovirus have led to the cessation of OPV in the USA, where IPV is universally administered. Not only is the latter associated with high efficacy, but it cannot lead to the escape of vaccine-derived-poliovirus (VDPV) into the environment and has few side effects.

### What were the findings?

The researchers intended to test their theory that the age-dependent morbidity and mortality from COVID-19 is mediated by immunity to the virus, which is partly contributed by poliovirus vaccination. Using data from the top 100 countries to be hit by the virus, they found that the higher the median age, the higher the prevalence of the virus was in that country, and the higher the mortality rate from COVID-19.

Secondly, they found that the RdRp from SARS-CoV-2 and poliovirus had similar molecular weights of approximately 130 kD, with similar tertiary and quaternary structures. Both were bound at one site, at least, by the mouse anti-RdRp monoclonal antibody 4E6.

The researchers found anti-RdRp antibodies in a sample of both adults and children, which were able to recognize the RdRp of both viruses. Higher titers were seen in those who had received IPV. Immune serum from these individuals inhibited viral replication in Vero cells, with stronger effects being observed when the antisera were added to the cells before viral challenge.

The strongest inhibition was seen with antisera from fully immunized young children and from young adults.

If poliovirus immunization builds immunity to the novel coronavirus, these results are expected since, by one year of age, the child would have been fully immunized but not at four months. The same effect is seen when an adult is immunized with two doses of IPV, inducing stronger inhibition of SARS-CoV-2-induced cytopathic effects (CPE) in the cell culture.



Image Credit: Numstocker / Shutterstock

Protection from either polio or SARS-CoV-2 declines with age, but inhibition of CPE improves by over a third with a single IPV booster dose. Lower immunity in adults aged 60-65 years may be partially compensated for by IPV, raising the immunity above that of an adolescent who was not recently immunized.

In vitro inhibition of RdRp activity was observed with poliovirus antisera randomly selected from immunized adults and children, with 13 of 17 samples showing effective inhibition of RdRp enzymatic activity.

### What are the implications?

The study shows that "*poliovirus vaccination raises antibodies that cross-react with SARS-CoV-2, with the primary target of these antibodies being the RdRp of poliovirus and coronavirus.*" Antisera from immunized individuals prevent SARS-CoV-2 CPE in cell cultures. The antisera successfully reduced RNA replication by inhibiting RdRp activity.

These findings may imply that childhood vaccinations elicited antibodies to SARS-CoV-2 in younger individuals and thus reduced their susceptibility to the virus. This harmonizes with studies that indicate a possible role for the anti-tuberculosis BCG, MMR (targeting measles, mumps and rubella) and poliovirus vaccines in protecting against SARS-CoV-2 infection.

The study also draws attention to the potential importance of RdRp as a therapeutic target. Anti-RdRp antibodies apparently inhibit SARS-CoV-2 CPE by preventing its adsorption or internalization into the host cell, mediated by viral genome-RdRp interactions. Thus, other SARS-CoV-2 protein antigens than the immunodominant spike may be suitable for vaccine development.

## Could Polio Vaccines Help ... (cont'd from p18)

"We suggest IPV immunization may induce adaptive, generally long-term, and specific immunity to poliovirus and SARS-CoV-2 infection." The authors are continuing their investigation via a larger clinical trial to test the usefulness of this vaccine in the prevention of COVID-19.

The possibilities are bright, as the poliovirus vaccine is a decades-old vaccine with abundant safety data, and established pharmacological standards. Manufacturing and toxicity data are also readily available. In the light of significant vaccine hesitancy directed at the newly developed COVID-19 vaccines and the shortfall in vaccine supplies, the researchers suggest that the utility of the poliovirus vaccine be re-examined in this light.

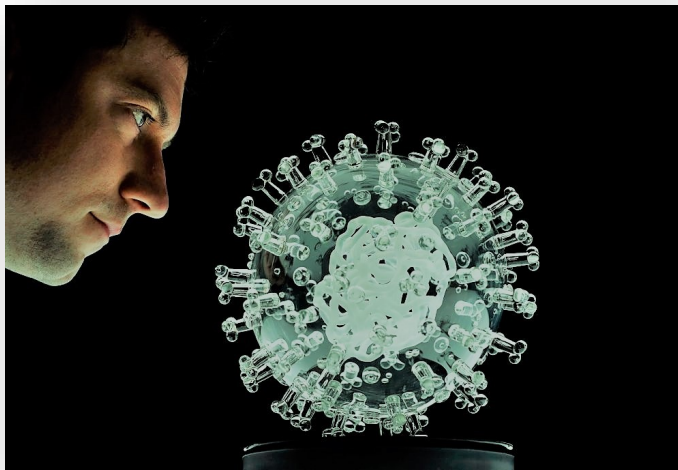
### \*Important notice

medRxiv publishes preliminary scientific reports that are not peer-reviewed and, therefore, should not be regarded as conclusive, guide clinical practice/health-related behavior, or treated as established information.

### Journal reference:

Comunale, B. A. et al. (2021). Poliovirus Vaccination Induces a Humoral Immune Response that Cross Reacts with SARS-CoV-2. medRxiv preprint. doi: <https://doi.org/10.1101/2021.06.19.21257191>, <https://www.medrxiv.org/content/10.1101/2021.06.19.21257191v1>.

## Global COVID-19 Eradication More Feasible Than Polio



### Global COVID-19 eradication more feasible than polio: Study

By Abigail Anderson

Source: [www.socialpost.news](http://www.socialpost.news)—15 August 2021

According to an analysis published Tuesday in BMJ Global Health, global eradication of COVID-19 is more feasible than polio, but much less so than smallpox.

Public health experts from the University of Otago Wellington in New Zealand note that vaccines, public health interventions, and global interest in achieving this goal have eradicated COVID-19. However, the main challenges are ensuring sufficiently high vaccination coverage and responding quickly enough to SARS-CoV-2 variants that escape the immune system, the virus that causes COVID-19.

The authors evaluated the feasibility of eliminating COVID-19, which is defined as "the permanent reduction to zero in the global

frequency of infection caused by a specific pathogen as a result of conscious effort."

They compared it to two other viral pests for which vaccines have been made – smallpox and polio – using a number of technical, social, political, and economic factors likely to help achieve this goal.

The authors used a three-point scoring system for each of the 17 variables, including availability of a safe and effective vaccine, lifelong immunity, impact of public health measures, and effective government management of infection control messages.

They said the average score in the analysis was 2.7 for smallpox, 1.6 for COVID-19 and 1.5 for polio. Smallpox was declared eradicated in 1980, and two of the three serotypes of poliovirus have been eradicated worldwide.

"Our analysis with different subjective components appears to bring the possibility of COVID-19 eradication into the realm of the possible, especially in terms of technical feasibility," the authors wrote in the study.

They acknowledge that technical challenges in eliminating COVID-19 versus smallpox and polio include weak vaccine adoption and the emergence of more transmissible variants that bypass immunity and possibly bypass global vaccination programmes.

"However, the evolution of the virus is of course limited, so we can assume that the virus will eventually reach its peak and that new vaccines can be formulated," the authors explained. "Other challenges we face will be the high cost of vaccination and the modernization of health systems," they added.

## COVID-19 Eradication More Feasible ... *(cont'd from p19)*

The researchers also suggest that persistence of the virus in animal reservoirs could also thwart eradication efforts, but they add that this does not appear to be a serious problem. On the other hand, they realized that there was a universal will to fight infection.

The massive health, social, and economic impact of COVID-19 in most parts of the world has sparked "*unprecedented global interest in disease control and massive investments in pandemic vaccination,*" according to the authors.

I put my trust in [smallpox](#). And polio, COVID-19 is also benefiting from the added impact of public health measures such as border control, social distancing, contact tracing and wearing masks, which can be very effective with good use.

Taken together, the authors added, "*Take these factors together, they may mean that an 'expected value' analysis can ultimately estimate that the benefits outweigh the costs, even if eradication takes many years and has a high risk of failure.*" 🌟

## U.S. Departure From Afghanistan

### U.S. departure from Afghanistan imperils global quest to eradicate polio

By Leslie Roberts

Source: [www.sciencemag.org](http://www.sciencemag.org)—4 August 2021

The U.S. troop withdrawal from Afghanistan—along with the surge of the Taliban there—is imperiling the 3-decade global quest to eradicate polio. The Taliban has blocked house-to-house polio vaccination in areas under its reign for the past 3 years, putting up to 3 million children out of reach of the campaign and leaving Afghanistan one of only two countries, along with Pakistan, where the wild polio virus survives. Since the United States began to pull out troops, the Taliban has made rapid military gains and now controls much of the country. Some fear it may wrest complete control from the Afghan government—which supports the eradication campaign—after U.S. forces are gone in September.

That's a frightening prospect to many polio watchers. But some inside and outside the Global Polio Eradication Initiative (GPEI) say a clear resolution to the conflict, regardless of who prevails, may actually aid eradication efforts. They hope the campaign will be able to work with the Taliban to keep vaccinations going. Until the conflict subsides, though, chaos is likely to interfere with vaccination drives.

The U.S. withdrawal comes at a time when the program is making strides against the wild virus after several years of setbacks. Cases in Afghanistan almost tripled to 56 between 2018 and 2020, and the country also saw explosive outbreaks of polio virus derived from the live vaccine, which paralyzed more than 300 children in 2020. Roughly 85% of all cases occur in areas inaccessible because of Taliban control, says Aidan O'Leary, who in January took over as head of GPEI, headquartered at the World Health Organization in Geneva. The COVID-19 pandemic initially made things worse.

But so far this year, there has only been one case caused by the wild virus. That may be partly due to reduced population movement during the pandemic and more hand washing, says GPEI's Hamid Jafari, who directs eradication efforts in the region. Even so, "*The trend is very real.*"

Afghanistan's fate is closely tied to that of Pakistan, with which it shares a porous, 2670-kilometer border. That country has also reported just one wild virus case in this year, after a similar upsurge from 12 in 2018 to 84 last year. (The spike there was largely because of vaccine refusals driven by rumors and a virulent disinformation campaign, along with a sometimes -inefficient eradication program.)

Some optimism about Afghanistan stems from the belief that the Taliban is not opposed to polio vaccination per se—in fact, it has collaborated with the program in the past. "It was purely for security reasons in specific areas where it imposed the ban," Jafari says. The insurgents accused polio vaccinators of passing along information to help the United States target airstrikes that killed Taliban leadership. "*Whether right or wrong, if that is the perception, that is reality,*" O'Leary says. "*You have to admit, the airstrikes have been brutal*" for the Taliban and civilians, adds Stephen Morrison, senior vice president and director of the global health policy center at the Center for Strategic and International Studies in Washington, D.C.

The hope is that if the Taliban continues to consolidate power, its suspicions may ease and GPEI may be able to operate unimpeded. Following years of negotiations, the Taliban recently gave GPEI the green light to conduct vaccination in mosques in the provinces where it has imposed the house-to-house ban. The program is awaiting "*a more formal statement*" to proceed this month, O'Leary says—if the security situation allows. The Taliban will select people it trusts to be trained as vaccinators by GPEI, Jafari says.

**Cont'd page 21**

## U.S. Departure From Afghanistan *(cont'd from p20)*

Mosque campaigns are usually not as effective as going house to house, O'Leary says, reaching perhaps 40% to 50% of the target population, *"but we can hope to build on that."*

Given this opening, Jafari thinks it unlikely the Taliban will issue new bans on polio vaccination. *"We are on a very different trajectory in negotiations with them,"* he says. Others decline to speculate. *"The Taliban's endgame remains to be determined. There are more dire and more benevolent views,"* O'Leary says. And Morrison cautions that *"U.S. aerial campaigns won't necessarily end with the withdrawal."*

Although fighting between the Taliban and the government is a major obstacle, *"the program is not at a standstill,"* Jafari says. But it has had to cease activities where there is active fighting, says Godwin Mindra, UNICEF's polio team lead in Kabul. And districts that are accessible today might not be tomorrow, Mindra adds. A nationwide polio vaccination campaign is scheduled for September—if it can be conducted safely—with smaller campaigns scheduled for November and December. *"We will look very carefully at how the situation is evolving,"* O'Leary says.

The worst-case scenario is a descent into full civil war, with escalating violence, large numbers of refugees, and a broader public health crisis. Even then, GPEI leaders point out that the

program has lots of experience operating during conflict, in Syria and many other countries.

GPEI's new strategic plan for 2022–26 aims to interrupt all polio transmission in Afghanistan and Pakistan by the end of 2023. *"If we can continue to vaccinate through this year, we can make good progress"* toward that goal, Jafari says. But success also depends on stopping the virus in Pakistan, as the virus has often jumped back into Afghanistan just as the country was making gains. Although the polio program is *"very resilient, very innovative,"* Morrison thinks the 2023 time frame may be *"a bit delusional."* For now, O'Leary says, *"We are hostage to events on the security side."* 🇧🇪



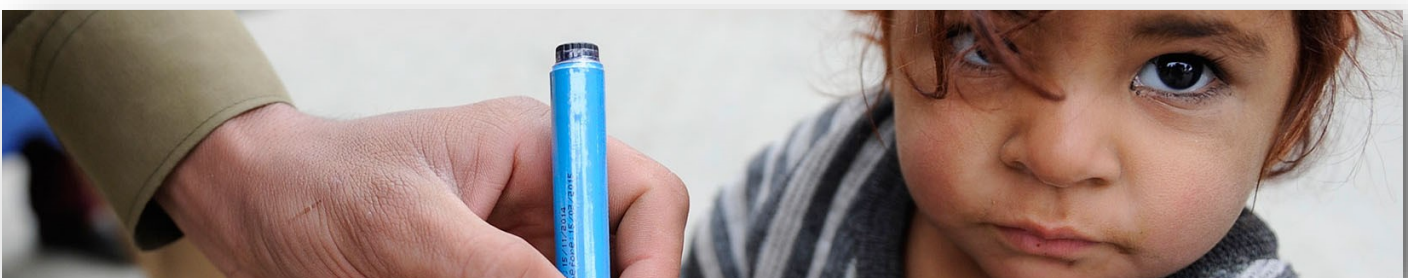
## GPEI Statement On Afghanistan

**Source:** [www.polioeradication.org](http://www.polioeradication.org)—19 August 2021

The Global Polio Eradication Initiative (GPEI) is closely monitoring developments in Afghanistan. GPEI partners and staff are currently assessing immediate disruptions to polio eradication efforts and the delivery of other essential health services, to ensure continuity of surveillance and immunization activities while prioritizing the safety and security of staff and frontline health workers in the country.

The polio programme in Afghanistan has operated for many years amid insecurity and conflict, and will continue working with all actors, agencies and organizations who enable delivery of immunization as well as deliver humanitarian assistance to populations in need across the country. The GPEI remains steadfastly committed to protecting all children from polio and supporting the provision of other essential immunizations and health services.

We strongly believe that the delivery of health care – including polio vaccination – is essential to prevent diseases and safeguard communities. Together with our partners, the people of Afghanistan, national and provincial authorities, we will do everything in our power to continue this critical work. 🇧🇪



# Polio This Week

## Global Circulating Vaccine-derived Poliovirus (cVDPV) as of 24 August 2021

Summary of new WPV and cVDPV viruses this week (AFP cases and ES positives):

- Nigeria: six cVDPV2 cases and five cVDPV2 positive environmental samples
- Tajikistan: eight cVDPV2 cases

	Country	AFP cases (Paralysis onset between 2016-2021)						Onset of most recent case	Other sources (Human) <sup>1</sup> (Collection between 2016-2021)						most recent collection date	Other sources (Environment) (Collection between 2016-2021)						most recent collection date		
		2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021			
cVDPV1 <sup>1</sup>	Madagascar					2	6	11-Jun-21						13	6-May-21								12	7-Jun-21
	Yemen				1	31	3	27-Mar-21			1				7-Jul-19									
	Malaysia				3	1		14-Jan-20																
	Philippines				2			28-Oct-19			1				31-Oct-19				12	9				13-Mar-20
	Myanmar				6			9-Aug-19			6				21-Aug-19				14					28-Nov-19
	Indonesia			1				27-Nov-18			2				13-Feb-19									
	PNG			26				18-Oct-18			7				20-Sep-18			7						6-Nov-18
	Laos							11-Jan-16							9-Feb-16									
Total type 1		3	0	27	12	34	9		5	0	7	10	0	13		0	0	7	26	9	12			
cVDPV2 <sup>1</sup>	Afghanistan					308	43	9-Jul-21					36	2	3-May-21						175	40	23-Jun-21	
	Nigeria	1		34	18	8	68	29-Jun-21	2 <sup>2</sup>		53	18	8	17	30-Jun-21	1		44	64	5	37	29-Jun-21		
	Tajikistan					1	23	26-Jun-21						20	16-Jun-21							13	20-May-21	
	Ethiopia				14	36	7	24-Jun-21			9	7			13-Oct-20					3	4			28-Dec-20
	Senegal						13	14-Jun-21						26	12-Jun-21							1	4	6-May-21
	Gambia																					2		9-Jun-21
	Burkina Faso				1	65	2	9-Jun-21					12		19-Sep-20									
	Egypt																					1	10	8-Jun-21
	Sierra Leone					10	4	28-Feb-21					5	6	19-Mar-21								9	1-Jun-21
	Uganda																					2		1-Jun-21
	Liberia						3	28-May-21					2	5	21-Jan-21							6	12	20-Apr-21
	Somalia				6 <sup>3</sup>	3	14	25-Oct-20					2	12	10-Nov-20		2	19	5	26	1			23-May-21
	Pakistan	1			22	135	8	23-Apr-21					14	2	11-Nov-20	4			40	135	32			18-May-21
	Benin				8	3	2	2-Apr-21							14-May-21							5	1	22-Mar-21
	DR Congo			22	20	88	81	10	30-Apr-21		19	15	29	88	2	21-Feb-21						1		29-Apr-20
	Congo					2	2	10-Feb-21					2		12-Oct-20							1	1	14-Apr-21
	South Sudan					50	9	10-Apr-21					18	5	25-Feb-21							6		1-Dec-20
	Guinea					44	6	1-Apr-21					1		5-Sep-20							1		30-Dec-20
	Iran																					3	1	20-Feb-21
	Kenya												1	2	25-Jan-21			1			1	1		13-Jan-21
	Côte d'Ivoire						61	18-Oct-20					24		1-Nov-20					7	93			23-Dec-20
	Mali						50	23-Dec-20					3		15-Aug-20							4		29-Aug-20
	Sudan						58	18-Dec-20					10		1-Oct-20							14		9-Nov-20
	Niger			10	1	10		25-Aug-20		4	6	2			13-Oct-20							8		8-Dec-20
	Chad				11	99		28-Nov-20					6	17	15-Oct-20							10	3	13-Mar-20
	Central African Republic				21	4		29-Oct-20					43	1	5-Oct-20							9	2	5-Feb-20
	Cameroon					7		11-Sep-20					4		29-Mar-20							4	9	29-Sep-20
	Ghana				18	12		9-Mar-20					16	10	22-Feb-20							17	20	17-Sep-20
	Togo				8	9		3-May-20					1	9	9-Jul-20									
	Angola				138	3		9-Feb-20					22		31-Oct-19							17		2-Dec-19
	Malaysia																					3	5	4-Feb-20
	Philippines				12	1		15-Jan-20					6		23-Nov-19							19	4	16-Jan-20
Zambia				2			25-Nov-19					2		25-Sep-19										
China				1			25-Apr-19					3		18-Aug-19				1					18-Apr-18	
Mozambique				1			21-Oct-18					2		17-Dec-18										
Syria			74				21-Sep-17		1 <sup>3</sup>	66				12-Sep-17										
Total type 2		2	96	71	366	1071	200		3	85	74	177	274	86		5	2	65	198	533	166			
cVDPV3 <sup>1</sup>	China												1	22-Jul-20								1	25-Jan-21	
	Somalia				7 <sup>5</sup>			7-Sep-18			2				29-Jun-18				11					23-Aug-18
Total type 3		0	0	7	0	0	0		0	0	2	0	1	0		0	0	11	0	0	0	1		
Gender	Female (all sero type)	3	54	34	151	489	78																	
	Male (all sero type)	2	42	70	215	606	130																	
	Gender Unknown				12	10	1																	

World Health Organization  
Global Circulating Vaccine-derived Poliovirus (cVDPV)<sup>1,2,3</sup>

<sup>1</sup>For cVDPV definition see [http://polioeradication.org/wp-content/uploads/2016/09/Reporting-and-Classification-of-VDPVs\\_Aug2016\\_EN.pdf](http://polioeradication.org/wp-content/uploads/2016/09/Reporting-and-Classification-of-VDPVs_Aug2016_EN.pdf). <sup>2</sup>Figures include multiple emergences. <sup>3</sup>stool collected in Sep - 2016 but the final result was reported in 2017. <sup>4</sup>Include contact, healthy and community samples. <sup>5</sup>1 cVDPV2 and cVDPV3 isolated from one child. <sup>6</sup>No clear evidence of in-country community transmission; investigations underway

Environmental surveillance for poliovirus in selected sewage sites established and working  
★ Due to backlog reporting of viruses from member states, numbers in this table may increase without being notified as new case/specimen in the current week

Data in WHO HQ as of 10 Aug. 2021

**2** ENDEMIC COUNTRIES

**26** OUTBREAK COUNTRIES

**5** KEY AT-RISK COUNTRIES

## Key At-Risk Countries

Low levels of immunity and surveillance leave countries at risk of polio returning. To ensure that every country stays free from polio, it is essential to reach every child with polio vaccines and to strengthen disease surveillance.

- Indonesia
- Mozambique
- Myanmar
- Papua New Guinea
- Philippines



Date

Building or council name

Building or council address (if applicable)

Dear **name of person or building**,

My name is **(your name)**, and **(brief statement about your connection to this town, building or council, e.g. I am a resident of your council/I live in (name of this city)/I love to attend events in your building etc.)**

### **Lighting to raise awareness of polio's late effects – 11<sup>th</sup> to 17<sup>th</sup> October**

Polio Australia exists to represent survivors of polio and to raise awareness of the ongoing issues they face due to Late Effects of Polio. Our catchphrase is "**We're Still Here!**" – a reminder that polio has not been around in Australia for decades, but thousands of Australians (whether born here or overseas) still live with its effects.

October is National Polio Awareness Month and we particularly focus our activities in the second week of the month. Our theme colour is **orange**, and we are aiming to get as many significant places as possible across Australia lit up to help raise awareness of the Late Effects of Polio.

We already have several landmarks on board, and we would love your help and participation as well!

Will you support our campaign by **lighting (building/city/town) orange for the week of 11-17 October 2021**, or on any specific day during that week?

For more information, please contact Stephanie Cantrill, Community Programs Manager at Polio Australia, on 03 9016 7678 or [steph@polioaustralia.org.au](mailto:steph@polioaustralia.org.au). We look forward to hearing from you.

Kind regards,

**Your name**

