Polio Australia
Representing polio survivors throughout Australia

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Polio Oz News

June 2023—Winter Edition

Fracture Risk Awareness: Implant Related Fractures (IRF)

By Michael Jackson
Polio Australia Clinical Educator

Source: sciencedirect.com

A May 2023 research article out of Spain has examined the surgical management of non-prosthetic implant-related femoral fractures in four post-polio patients. In simpler terms, they studied thigh bones broken near where metal implants were left in place from a previous break in the same bone. This study did not look at fractures near previous joint replacements.

The authors stated that fractures in polio-affected femurs are challenging to treat on an initial fracture, but more so when a second fracture occurs near existing implants (plates, screws, nails). In a polio affected leg, there are factors making stabilisation difficult. At a minimum this includes: the shape, density, thickness and blood flow of the femur; what soft tissue (muscles, tendons, ligaments) is around the femur; and how reliably thigh and hip muscles work to enable mobility.

To stabilise the new fracture, they noted that surgeons usually have to remove existing implants, and attend to bone and soft tissue deficiencies from polio and previous fracture healing in their planning and approach. This complexity can delay scheduling surgery by 6 days, and final healing can take 7 to 9 months.

It is known that leg fractures in polio survivors too often result in long term functional ability loss – a very significant consequence. Femur fractures lead to increased healthcare costs for multiple years, less activity, and reduced participation in roles central to a survivor's quality of life.

The authors noted that IRF in those with PPS affected a younger age range than was expected –this puts survivors' workforce participation at risk.

Fall risk and falling is important for survivors and their clinicians to assess and act upon. The second fractures in these patients were all 'low energy' events – this means events occurring from no more than a standing height, such as tripping, slipping or falling. Each individual's fall risk profile is unique and risk reduction is best addressed by allied health professionals at your local clinic or by participating in a fall reduction program.

This study serves as a weighty reminder that fractures can happen more than once in a limb, and do so despite considerable internal hardware providing support from an initial fracture. Most polio survivors have more than one serious fall per year, but even one quite minor fall can cause you to have life-changing consequences.

Falls occur during all season of the year. The nuances and impact of fall injuries in Australia is summarised by the AIHW. State-based resources are listed below. With falling, it is truly a case of prevention being far better than the cure.

Link: www.sciencedirect.com/science/article/pii/S2352644023000912?via%3Dihub

Fall Reduction Information and Programs:

QLD
clinicalexcellence.qld.gov.au/priority-areas/safety-and-quality/falls-prevention-healthy-active-ageing
NSW
www.cec.health.nsw.gov.au/keep-patients-safe/older-persons-patient-safety-program/falls-prevention
ACT
www.canberrahealthservices.act.gov.au/services-and-clinics/services/falls-and-falls-injury-prevention-program
VIC
www.nari.net.au/victorian-falls-directory
TAS
www.health.tas.gov.au/campaigns/healthy-ageing/being-physically-active/preventing-falls
NT
nt.gov.au/wellbeing/emergencies-injuries-and-accidents/fall-injury
SA
https://fallssa.com.au/reducing-my-risk-of-falls/
WA
www.injurymatters.org.au/programs/stay-on-your-feet/
Don't fall for it. Falls can be prevented! (PDF)
www.health.gov.au/sites/default/files/documents/2021/04/don-t-fall-for-it-falls-can-be-prevented.pdf

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Inside this issue:

"Winter is on my head, but eternal spring is in my heart"

~ Victor Hugo ~

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

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

President's Report

By Gillian Thomas OAM
President

I start this report with the announcement that, tragically, we have not been able to secure continued federal funding, nor yet obtain private funding, for our clinical education program. The cost of the program runs at roughly $200,000 per annum. There is no other post-polio education for health professionals and in tertiary training anywhere else in the world.

Since late 2017 this program has served Polio Australia's mission *to standardise quality polio information and service provision across Australia for polio survivors*. Through the primary workshop activity, we have reached over 2150 health professionals, and provided over 200 education sessions Australia-wide. Polio Australia has one last funding application in with a philanthropic trust which, if unsuccessful, will mean the end of this unique education program. Without an injection of funds, Polio Australia simply does not have sufficient reserves to continue providing the program.

However, Polio Australia has been battling the odds since it commenced in 2008, so we hold on to any sliver of hope that a funding resolution may still be found before we lose our vital team members, Michael and Paulette Jackson.

As we are at the end of the financial year, Polio Australia is requesting any EOFY, tax-deductible donations you may be able to provide; no amount is too small (or large!). Just think, if everyone receiving this newsletter contributed towards the cost of the education program, it would be able to continue.

On a different note, I was personally saddened to learn that well known Australian and polio survivor, Joy McKean—Mrs Slim Dusty—passed away in May. Many of us are 'of an age' that would relate to the music produced by Joy and Dusty. We lived in a simpler time before the prevalence of social media and the kind of technology we have today. Joy appeared to live with strength and fortitude that is typical of many polio survivors, I believe, especially those who contracted polio in the 30's, 40's, and 50's.

Although we are on the brink, I continue to be hopeful that the full team at Polio Australia will continue to provide services for the coming financial year.

Gillian

From The Editor

By Maryann Liethof
Editor

I just returned last week from a 6 week holiday in the northern hemisphere, and I am certainly feeling the cold as winter settles into Melbourne! I think I am going to have to have a good review of Nutritionist, Melinda Overall's, article *"Winter Weight"* (P11)! I really do love my bread and pasta (and puddings, and chocolates…).

Winter can be gloomy (depending on where you live, of course) and, apart from consuming more carbs, can also be a time when we tend to stay inside in our slippers and cosy, loose-fitting clothing. All great tripping hazards. Clinical Educator, Michael Jackson has provided 'food for thought' on *"Fracture Risk Awareness"* (P1), together with a state-based list of Falls Reduction Programs, which may be of interest.

Since the last edition of *Polio Oz News*, Devalina, our Community Development Worker, has facilitated a *"Wellbeing for Polio Survivors and Carers"* seminar in Melbourne (P5), which revealed that there are still many polio survivors—and their carers—who are keen to learn all they can about strategies for living as well as possible. Especially when combined with meeting up and sharing information with others.

And who doesn't love a good story? Rita Hayes' contribution *"Shall We Dance?"* (P7), is great tale about the resilience of polio survivors, and their love of dance.

Over the past few years, there have been a growing number of comparisons made between the late effects of polio and other lasting viral effects, such as Long Covid. Rebecca Siddall's article *"The Invisibility Of Long Covid"* (P13) will, no doubt, touch a few nerves. Especially her last sentence. Maybe today's technology will help keep the memory alive. Only time will tell.

An interesting study in Sweden (P15) looks into *"The risk of post-polio syndrome among immigrant groups in Sweden",* an issue that most Western countries are experiencing, including Australia. While the government and health care sector argue that Australia's post-polio demographic is waning, are they taking immigration into account? That is one of the key messages Polio Australia keeps trying to deliver to the 'powers that be'. But we need more statistics, which also means we need more funding. The pursuit of which is a never-ending drain on our resources.

That's it until Spring! Look after yourselves.

Maryann

Clinical Practice Workshops Update

By Michael Jackson
Polio Australia Clinical Educator

Since the last newsletter in March there has been much uncertainty around the continuation of this program, due to government funding not having been renewed for, or in, this current financial year. This certainly distracted the whole team as time ticked away – attending to business as usual is difficult when funding is not secure for a program central to Polio Australia's mission.

Workshops

March was the busiest month of 2023 so far in terms of workshops. It included a third visit to the Coffs Harbour region in three years, consolidating the region as the most well-saturated location in Australia with regard to post-polio professional training and clinical resource distribution.

Clinical groups in four states were reached over the last three months, and each month had Zoom workshops where 6 in total attended online. Many thanks to the Lived Experts who joined us to share their polio story with the clinicians we reached!

- **March** QLD – Palm Beach; and NSW – Little Bay, Lismore, Coffs Harbour Rural Health, Mackville, Coffs private clinic, and Bellinger Hospital.
- **April** VIC – Royal Melbourne Hospital at Royal Park.
- **May** WA – Armadale Hospital via teleconference (two Joondalup workshops were cancelled so a visit to WA was postponed).
- **June** QLD – Redlands Mater Hospital.
- **Workshops in the New Financial Year:** Look out Tasmania – here we come at last! We have three sessions confirmed during a week in August. Then we have a visit to Melbourne lined up for a large community physio group. Our Zoom workshops will continue to be offered on the second Tuesday of each month.

HealthPathways

HealthPathways are hubs of curated clinical information on various health conditions tailored to about 40 regions across Australia. The HealthPathways concept is ideal for guiding the health management of those with less common conditions – neurologic ones in particular – but also for enabling clinicians to use best practice for common health conditions which may have changing guidelines and frequent new developments in care.

In March we contacted 10 NSW HealthPathways, and in May an additional 16 in QLD, VIC and SA were contacted to assert the need for the development of LEoP pathways for the clinicians working in those regions. Currently there are four LEoP pathways in use – Melbourne, Metro South Brisbane, Tasmania and the Northern Territory. A pathway is in development for Central Sydney.

COVID brought the development of most other conditions' pathways to a grinding halt. Emerging from the pandemic, some regions are adding conditions to their list of pathways but some are still attending to reviewing and updating their existing pathways – a process disrupted by the pandemic.

HealthPathways within a state can share developed pathways which require minimal modifications – so as to not reinvent the wheel – but each pathway still needs review to ensure local clinicians are not misdirected (i.e. a Tweed Heads pathway might direct a GP there to send a polio survivor north to a Brisbane specialist rather than much further south to one in Sydney).

Four of the regions contacted recently have replied citing barriers to creating a local LEoP pathway, including: being at capacity, being unable at this time, and having key staff unavailable. These responses suggest local capacity limitations rather than a disinterest in the topic being included. This was confirmed via an insightful conversation with the Nepean Blue Mountains HealthPathways Manager, who pointed out the potential to have an LEoP pathway available widely in NSW, given that Sydney had started developing one. This is good news for polio survivors in NSW – it is not only GPs who use these pathways, but allied health and other clinicians.

Speaking Engagements

Speaking engagements outside of workshops included the Rotary Club of Jindalee (QLD) and the Victorian Polio Survivor Conference in April, and in May the Rotary eClub of WA and Morning and Afternoon Tea sessions with NZ polio survivors.

These were opportunities to engage specific audiences with post-polio topics, and were well received, resulted in a donation to Polio Australia, and in an invitation to again address the survivors in NZ in June.

Polio Survivor Hospitalisations 2015-2021

Late last year we received data requested from the AIHW regarding the number of post-polio

Cont'd P6

Community Programs Update

By Devalina Battacharjee
Community Development Worker

A lot has gone on in the Community Development section since we last touched base.

We have successfully conducted community information sessions all throughout the Sunshine state, towards the end of March, in areas such as the Gold Coast, Toowoomba, Maroochydore and Brisbane. The aim of the Toowoomba, Maroochydore and Brisbane sessions were to attract new members to join our existing community and spread awareness about Late Effects of Polio, bringing survivors and their carers into the fold that had hitherto been unaware of us and our efforts. The Gold Coast session, however, was conducted for the pre-existing support group, to bring everyone up to speed on, *"How to make the most of your healthcare team and self-management tips for LEoP,"* (thanks Lyn Glover!).

Our Melbourne seminar on, *"Wellbeing for Polio Survivors and Carers"*, took place on the 29th of April, at the Darebin Arts and Entertainment Centre. Jenny Koadlow, Dr. Stephen de Graaff and Michael Jackson, our Clinical Health Educator, were our esteemed guest speakers. The event was a resounding success, successfully attracting over 50 attendees from all over Melbourne! *(Photo highlights below.)*

We also have a series of community information sessions coming up in different part of Sydney, namely, in Randwick, Hornsby, Parramatta, Glenhaven and Hurstville. More details about the sessions and the booking links can be found here: www.polioaustralia.org.au/community-information-sessions/

Until next time, stay safe and warm!

Clinical Practice Workshops Update (Cont'd from p4)

code specific hospitalisations occurring annually across Australia over the last decade. Our research group have been chipping away at the hospitalisation data analysis, and trying to provide a clear descriptive picture of how frequently and where those with post-polio conditions in Australia use hospitals. The data also includes parallel data from a few other neurological conditions, for comparison purposes. We are on track to have this completed in the next few months, and seek to have the paper published by the end of this year.

GP Clinics Resource Drop

In the days prior to the Victorian Polio Survivor Conference at the end of April, I hand delivered a resource pack to 19 large GP clinics/medical centres in the greater Melbourne region. This was a pilot and hence on a smaller scale than the Hospital Kit mail-out in 2022 that went to 200 hospitals across the country. Once we have received some more feedback on how these resources were shared and stored we will be in a position to determine whether this project should be rolled out nationwide to large GP clinics and community medical centres.

Zoom Workshops Professional Attendees

The clinical education program has been offering professional post-polio education via 2-hour Zoom workshops since November 2020. As a webinar, the workshops has all sorts of metrics, however the vital ones for reach are registrations and show up rates.

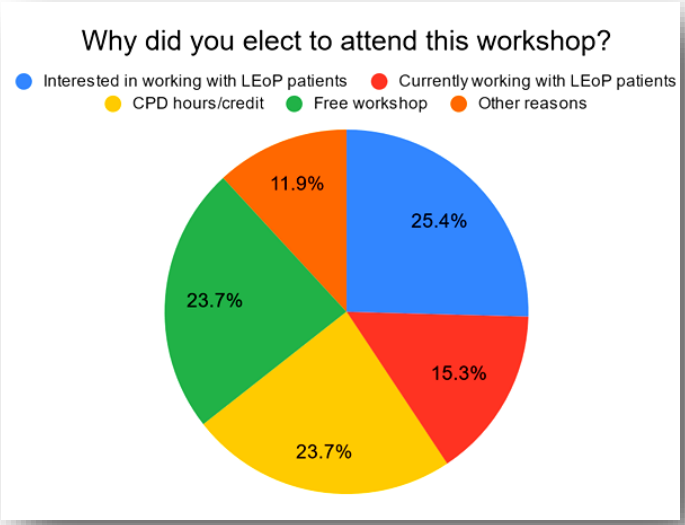
Our registrations are low (usually a handful most months) compared to one-off/uniquely offered webinars, which are more common. That said, the 73 attendees we have had via this mode amount to 5 fully attended regular workshops, and we have reached professionals in places and at times we couldn't have otherwise.

For webinars in general, a usual show up rate (person registered AND attended) is between 33% and 40%. Our clinical workshop has a show up rate of 53%. While male and female show up rates are quite similar, 9 out of 10 registrations are female. The show up rate is also different across sub categories of attendees who had more than 15 attendees:

- 40 Physios, 65% attended
- 36 Nurses, 28% attended
- 23 Occupational therapists, 65% attended
- 25 Other Allied Health, 64% attended
- 10 Other attendees, 40% attended

We do have a very healthy show up rate across our professional audience. Nurses are clearly interested in and motivated to register, but are more likely to encounter stronger barriers to attending due to shift scheduling and the demands and priorities of patient care. What this does show us, and what we hear from attendees, is that there are specific motivations behind attending the webinars.

Our attendees are primarily professionals who are specifically interested in the topic. In the Zoom attendees' feedback they indicated reasons why they attended, as follows:



The reasons given by in-person and Zoom attendees combined are only marginally different, in that more report being interested in or working with polio survivors and less join for the CPD or free aspects. Given the relatively proportional distribution of the main four reasons for attending regardless of mode, it is important for our workshops to continue to cater to these aspects.

When we have 5 or more professionals registered for a Zoom session, we look for polio survivors from any corner of the country to join us and to act as a Lived Expert. If you would like to play this role then please submit your details here: https://bit.ly/livedexpert It's a great chance for you to share your polio story, and to also hear about the more clinical details of late effects of polio.

Story Telling

By Paulette Jackson
Administration Officer

One of our lovely polio survivors, Rita, recently shared the following story with us. We hope you enjoy reading about Rita and the three ballerinas who had polio. Rita recently joined a ballet for Seniors class at the age of 76. What an inspiration.

Shall We Dance?

By Rita Hayes

My father, Canice Hayes, was an Irish step-dance champion. Dancing was important to my parents as evidenced by their naming me Rita, after Rita Hayworth, arguably Fred Astaire's best dancing partner. I was unable to fulfil this hope or expectation as I contracted polio one month prior to my third birthday in 1949. I was told that I had sunstroke and I remember my mother bathing my prostrated body head to toe, to try and bring my temperature down, after which I didn't move. I was eventually seen at Great Ormond Street Children's Hospital by a Mr. Higgins. My mother was instructed to passively exercise my legs, but when she did, it was so painful that I screamed the place down, so my parents came up with the idea of putting me on a tricycle with my feet strapped to the pedals, and pushing me everywhere. I was very proud of my bright red tricycle, and I tolerated this process despite the pain, until eventually the legs became capable of voluntary but still painful movement. Walking was a greater challenge, but by the time I started school I could pass as 'normal' except in the playground. I couldn't stand from sitting cross-legged on the ground, without using my arms. No one mentioned polio to me. I was told that I was too heavy for my legs. I grew up to a litany of 'don't drag your feet', 'don't drop into chairs, sit down properly', 'don't slump'. I always felt accused of not pulling my weight.

Over 20 years later doing anthropological fieldwork in the rain forest of the Waskuk Hills of the Middle Sepik in New Guinea in conditions as bad as the Kokoda trail but without a trail, I found my legs could no longer cope with the demands I put upon them. Reluctantly, I returned to London. I saw an orthopaedic surgeon who sent me for neurological tests. I had to wait a year to find out if the problem was an old polio or motor neurone disease. If an old polio, then the nerve conductivity would not get worse during the course of the year. An old polio it was, or to be precise 'pes cavus amd nerve conduction lesions consistent with early polio'. The neurologist at the Maudsley told me that

because I'd been so young when I contracted polio, I had trained my afferent nerves to do the work of my compromised efferent nerves, so I could walk but I would always have pain in moving my limbs. When I told this to my mother, she said 'yes the doctor said you had polio, but we didn't like the diagnosis, so we changed the doctor'! Perhaps there was a stigma attached or maybe they just wanted to prevent me being hospitalised. Other children in the street who had been hospitalised had never returned.

My father's compatriot Edris Stannus, born in County Wicklow in 1898, discovered her love of dance when Kate, the family's cook, taught her an Irish jig, which she practiced on the stone floor of the kitchen before performing it at a party. At the age of 6 she moved to England and lived with her grandmother in Kent. She started ballet lessons at the age of 10. In her early teens she undertook more serious training at the Lila Field Academy for Children and changed her name to Ninette de Valois. She became a child star. In 1919, at the age of 21, de Valois was made a principal dancer for the Beecham Opera, which was the resident company at the Royal Opera House at the time. In 1923 she went on to dance with Serge Diaghilev's Ballets Russes, which was at the forefront of theatrical dance, music, and design. While there she formed a bond with Bronislava Nijinska. Both were from countries with strong traditional dance cultures and were interested in how classical technique

Cont'd P8

Shall We Dance? (Cont'd from P7)

could be applied to folk dance. She withdrew from regular intense dancing in 1924 after doctors found she was suffering from a previously undiagnosed case of childhood polio. She said that had she known that the pain she experienced was not felt by everyone she would have stopped sooner. Thereafter, she focussed her career on choreography and teaching. In 1926 she founded the Academy of Choreographic Arts for girls in London, and a sister school in Dublin. She understood the importance of the link between school and ballet company from her own training, and with the dogged determination so characteristic of polio survivors, she set about developing a British Ballet which became the Sadlers Wells Ballet and ultimately the Royal Ballet. She died in 2001 at the age of 102.

Cyd Charisse was another filly out of the Ballets Russes and Nijinska stable. Pun intended, as a famous racehorse was named after Nijinska's brother the ballet dancer Nijinsky. Cyd was born in Texas, in 1921. Her nickname 'Sid' came about because her brother had problems enunciating 'Sis'. When she went into films the studio changed the spelling to 'Cyd'. As a young child she had contracted and survived the deadly polio virus, and at age six started dancing lessons as a form of physical therapy to build up her muscle mass and strength. At twelve, she studied ballet in Los Angeles with Adolph Bolm and Bronislava Nijinska, and at fourteen, she auditioned for and subsequently danced in the Ballet Russe de Monte Carlo as "Felia Siderova" and, later, "Maria Istomina". During a European tour she married Nico Charisse a young dancer she had studied with in Los Angeles. The outbreak of World War II led to the ballet company being disbanded and she returned to the USA. Initially she had some uncredited parts in films then her career really took off when Gene Kelly chose her, instead of leading lady Debbie Reynolds, who was not a trained dancer, to partner him in the 'Broadway Melody' ballet finale from "Singin' in the Rain" (1952). Her entrance in the film involved slowly passing Gene Kelly his hat with her leg after he drops it. A gangster's moll in a green flapper dress, puffing on a long cigarette holder, and provocatively wrapping her long legs around Kelly, she was the ultimate vamp. She also partnered him as a chaste dancer in a white tutu whose long scarf floats in the air. She insured her legs for $5 million, making them the most valuable in the world. After her breakthrough in her silent role in "Singin' in the Rain", her reputation as a dancer was consolidated in 1953 with her first lead role opposite Astaire in Minnelli's "Band Wagon" and then again in "Silk Stockings" (1957). Fred Astaire once described her as "beautiful dynamite". Sarah Kauffman of The Washington Post (cited by Smith 2022) said her ballet training gave her "a whole different way of carrying herself, pulled up and light, her legs stroking forward like a cat's. Charisse was in fact nearly tone deaf, and in all her musicals her singing was dubbed. After the decline of the Hollywood musical in the late 1950s, Charisse retired from dancing but continued to appear in film and TV productions. She produced the exercise video Easy Energy Shape Up, for active senior citizens. Like so many polio survivors she played the experience down saying it was polio but "not enough to cripple me although I still have an atrophy on the right side of my back". She died in 2008 age 86.

Born in 1946 in Melbourne, Gailene Stock was drawn to dance from an early age. Her mother Sylvia taught theatre dance. A dancer from the age of four. At the age of eight she contracted polio and spent over 18 months in hospital where she lay immobilised on her back strapped neck to toe in a full-body-length metal frame (not an iron lung). It was the boredom and frustration of it all that she found hardest. She was told she would never walk again. Sent home still imprisoned in the frame, which she called Percy, she was determined to walk again. Through painstaking rehabilitation exercises administered by her mother, beginning with painful stretching of atrophied limbs, then progressing to walking on all fours, and eventually standing she not only walked but was dancing again four years later at the age of 12. This recovery alone was remarkable enough. Two years later she had a further major setback, suffering serious injuries when a collision

Cont'd P9

Shall We Dance? *(Cont'd from P8)*

between a cement lorry and her father's car left her with a fractured skull and jaw and in a coma for three days, three months before she was to take her Royal Academy of Dance (RAD) intermediate exam. Showing great determination, she pulled through and passed her exam with a commendation. In 1962, aged 16, Stock was awarded a RAD scholarship to London's Royal Ballet School. At the same time, Dame Peggy van Praagh chose her to be the youngest foundation member of the newly established Australian Ballet, so Stock deferred her scholarship to join the company.

The following year she took up her scholarship in London. Nine months into her scholarship she told Dame Ninette de Valois that she was leaving. De Valois told her that if she stayed, she'd be offered a place with the Royal Ballet. She chose instead to spend some months dancing in Europe before returning to Australian Ballet, where she spent the next seven years, touring the world and rising to Principal Dancer under Director Robert Helpmann. A highlight of her career was a cameo in Rudolf Nureyev's film of Don Quixote (1973). She also made frequent media appearances.

Stock spent three years in Canada as Principal Artist with the National Ballet of Canada, and with the Royal Winnipeg Ballet, before returning with her husband, the principal and ballet master Gary Norman, to resume their careers with Australian Ballet in 1977. With the birth of their daughter Lisa the following year, Stock retired from dancing and moved into teaching and management. She was soon appointed Director of the National Theatre Ballet School in Melbourne. After six successful years, in 1990 she became Director of the Australian Ballet School and then in 1999 she was head-hunted to take over from Merle Park as Director of the Royal Ballet School in Covent Garden. She accepted the post on condition that her husband taught the boys at the School, making the most of the upsurge in interest created by the film, 'Billy Elliot' (2000).

When she moved to The Royal Ballet School in 1999, she immediately set to work changing the curriculum in order to make the student dancers more employment-ready upon graduation. When she joined, employment rates were around 48% and steadily rose to over 98% during her 15-year tenure. She oversaw the move of the Royal Ballet School's senior section from suburban Chiswick premises to an award-winning conversion linked by bridge to the Royal Opera House in Covent Garden, and the upgrading of the accommodation of the junior section in White Lodge, Richmond Park.

She transformed the institution, which had become somewhat insular and old-fashioned, into a more inclusive and internationally welcoming establishment which is now widely recognised as one of the world's leading classical dance training centres. When interviewed by Bryce Corbett she said "I learned at an early age to be quite stubborn about what I wanted in life, and I learned that you have to be uncompromising in your pursuit of it". In 2014, age 68, she died in hospital, where she was being treated for cancer after being diagnosed with a brain tumour.

Here am I, aged 76, having just joined a ballet for Seniors class at my local community centre. Some of us have danced before, some like me, never have. We sport a variety of physical limitations. Our tutor has just turned 80 and is recovering from a knee replacement. So in the interest of longevity, fitness, and fun, shall we dance?

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Smith, C. (2022) Cyd Charisse health: Dancer was 'frail' as she battled polio – 'Needed to build muscle', Express 10:10, Sat, Apr 30, 2022 www.express.co.uk/entertainment/films/1603119/cyd-charisse-health-dancer-polio-fred-astaire-the-band-wagon-bbc-two-spt (last accessed 25 04 2023).

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Winter Weight

By Melinda Overall JP
Nutritionist / Counsellor
www.overallnutrition.com.au

This year is speeding by and here we are again in winter. Historically, I've had many people come book in for a nutrition consultation near the beginning of spring wanting to shed the weight they've gained over winter. It seems to be a very common occurrence. There are a number of things that are happening to cause winter weight gain. Let's have a look.

One factor that might impact weight gain over winter is a general reduction in physical activity in during colder months [1]. This is predominantly because of lower temperatures, rain and in some locations snow. It seems that, for some people, perceptions that the weather isn't conducive to undertaking usual outdoor activities keeps them inside, with reduced movement [1]. Interestingly though, other studies have shown that this might not be as impactful as other factors such as food choices [2].

Think about the types of food eaten in the colder months – not so many salads but often hearty meals with higher carbohydrate content, quite possibly paired with a little more alcohol than usual. Then there are the winter puddings (YUM!) and hot chocolates. What's is happening here is that we have a greater intake of energy (calories or kilojoules) than we might ordinarily consume in the warmer months [2,3].

High carbohydrate intake leads to greater glycogen storage. Glycogen is a form of glucose stored in the liver and muscles, to enable energy supply later when food is scarce or when the body needs energy fast. For every one gram of glycogen stored, the body stores about three grams of water with it, ready to help convert glycogen back to glucose [4]. Both the glycogen and the water have a molecular weight that makes up part of your body weight. This doesn't mean you should stop eating carbohydrates, but rather choose complex carbohydrates like wholegrain bread and brown rice if you can tolerate them, or get you carbohydrate from vegetables like pumpkin, potato, corn or fruit. Additionally, stick with only your recommended number of carbohydrate serves (see table 1).

As we age, our metabolic rate slows so we're not as efficient at burning energy as we once were, therefore, we don't need as much food [5]. Look again at table 1 and you'll note the decrease in recommended servings of carbohydrates over time. For many people though, food intake doesn't decrease over time leading to small weight gains each year, further exacerbated by additional energy in those yummy warming hearty winter meals [6].

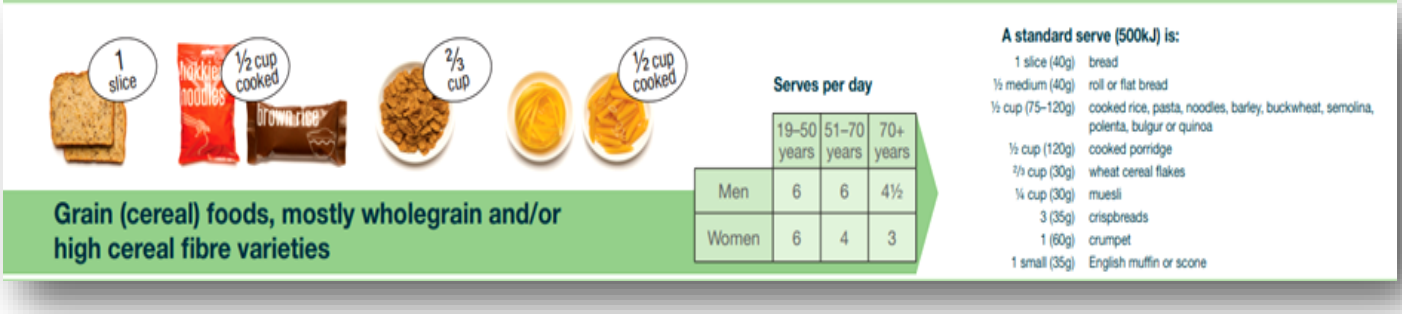
Lastly, when it's colder people tend to drink less water. Lower temperatures can 'confuse' the brain because you're more likely to have a lower body temperature and are less likely to be sweating, so the feeling of thirst is 'cheated' in a sense. Maintaining good hydration, even in winter, is important for so many physiological reasons, but in this discussion it helps to reduce the sense of hunger. Thus hydration appears to limit food intake but not necessarily the choice of food. Energy intake then could remain high [7]. It is important to know that drinking water also increases your metabolic rate [7]. The general rule of thumb for water consumption is 30ml per kilogram of body weight per day, sipped throughout the day.

So, if sensible (not restrictive) weight management is important for you over winter consider the following: fill up on fruits and vegetables, eat the recommended servings of carbohydrate, move as much as you can tolerate, eat protein at each meal and snack, recognise that no food is bad but rather some foods are 'sometimes' foods and stay hydrated.

Eat well, drink water, stay well.

(References on Page 19)

Table 1: Carbohydrate Serving Recommendations and Sizes [5]



Vale Joy McKean

Joy McKean, the first Golden Guitar winner and wife and manager of Slim Dusty, dies aged 93

Source: www.abc.net.au — 26 May 2023

Joy McKean, the first winner of the Golden Guitar who was also the wife and manager of Slim Dusty, has died at the age of 93.

Key points:

- Joy McKean is being remembered for her talent, empathy and integrity
- She told the ABC that Slim Dusty insisted on giving her due credit during the "chauvinistic" 1950s
- She is survived by her children, grandchildren, and great-grandchildren

EMI Music announced her death after a long illness with cancer. She died peacefully, surrounded by her family.

McKean was a multi-award-winning songwriter and musician who wrote many of her husband Slim Dusty's most famous songs.

She won the first Golden Guitar awarded at the Tamworth Country Music Festival in 1973 for the song Lights on the Hill.

The trip on the New England Highway on a rainy night was made more difficult because the vehicle's headlight dimmer switch was on the floor near the brake and she could only use one foot because she was wearing a leg caliper.

"I'd have my high beam on to see where the next turn was, a truck would come over and I'd cop it fair in the eyes," McKean said. *"I knew if I took my foot off [the accelerator] for too long the vehicle would either stall or start slipping back because of the weight of the van."*

The song came to her in the rhythm of the windscreen wipers and by the time she reached Warwick in southern Queensland it was complete.

McKean said when she first starting writing music in the 1950s the industry was "chauvinistic".

"Nobody would have believed I was writing [the songs]," she said. *"I said to Slim, 'We'll fix that — put your name on them. "He said, 'No, I can't do that.' "I said, 'Put both names on them' — and so that's what we did. "Of course then there was a fuss that 'Slim didn't give her a lot of credit.' "Oh, he gave me a lot of credit — don't you worry."*

The Queen of Country Music

Alongside Slim Dusty she produced more than 100 albums, sold more than eight million albums and earned 45 Golden Guitars.

"She will be remembered as a pioneer in Australian music," the company statement said.

Tamworth Country Music Festival co-founder, author and broadcaster Max Ellis first met McKean in the 1960s and said she had a deep understanding of the human condition.

"Working with Joy has been such a pleasure," he said. *"She was a person with enormous integrity, she was very practical. "She was a person who really relates to other people so well, and many of her famous songs are about other people, of course — songs like* The Biggest Disappointment *and* Kelly's Offsider*.*

She was very empathetic of others." Mr Ellis said McKean was a *"remarkable individual who was loved and respected by everyone who had anything to do with her". She will be sadly missed by the country music fraternity,"* he said.

Never Forget the Legacy

Country music singer/songwriter Beccy Cole first met Joy McKean in the early 90s as a teenager.

"I felt like I was in the presence of royalty," she said. *"Well, it was — country music royalty, and Slim gave me my first ever award and Joy shook my hand."*

A year later and McKean and Dusty invited Cole to go on the road with them.

"I have such fond memories of those times," Cole said. *"The thing I learnt is they are just*

Cont'd P13

Vale Joy McKean *(Cont'd from P12)*

about the people, they were always about making sure that everybody felt great and were thoroughly entertained."

Cole said the couple took a young Keith Urban on the road with them the year before the tour she joined.

"Their tradition of helping up-and-coming young artists has run through the country music industry — we help the younger ones because [they] helped us," she said. *"Her business head was fantastic, very intelligent and very creative,"* she said.

But as many attest, it was McKean's empathy that enabled her to write with such depth.

"The beautiful lyrics of a song like Grandfather Johnson and Biggest Disappointment — I believe Joy and Slim did more for reconciliation than any politician," Cole said. *"We will never forget the legacy that they have given us."*

Thank You Joy

McKean and her children played a significant role in the creation of the Slim Dusty Centre on the NSW Mid North Coast.

"She pushed and made sure that this happened and she had a huge support from her family," Kemspey Shire Council Mayor Leo Hauville said. *"It's no small measure that Slim Dusty and Joy McKean were the major contributors to what we now have in our local community and the Australian-wide country music scene."*

Golden Guitar and ARIA award-winner Fanny Lumsden took to social media to pay tribute to the icon. Lumsden said she would *"draw strength"* from McKean as she continued to play her music in halls throughout regional Australia. *"Thank you Joy,"* she wrote.

McKean is survived by her children, Anne Kirkpatrick and David Kirkpatrick, four grandchildren, and six great-grandchildren.

The Invisibility Of Long Covid

by Rebecca Siddall

"We need to take a look back in history to tackle prejudice towards Long Covid today", argues Long Covid patient Rebecca Siddall

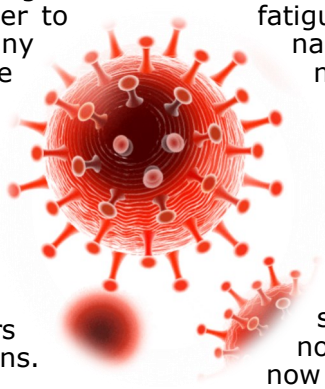
Source: www.varsity.co.uk/science/25380 – 11 April 2023

An estimated 65 million people worldwide and 2 million in the UK have Long Covid. I am one of them.

Having first caught COVID-19 in the earliest days of the pandemic, I spent March 2020 fighting for breath. My personal experience over the last few years has led me to investigate the history of post-viral conditions, in order to understand the bias that I – and so many other Long Covid patients – have endured to access adequate treatment. Despite clear evidence of such illnesses throughout history, a lack of understanding and research has led to patients experiencing a 'delayed or a complete lack of clinical care' today. I never expected to uncover such a clear (and yet widely unknown) narrative that radically alters how we should view post-viral conditions. I believe this presents a critical opportunity in the present to change the perception of Long Covid as it unfolds.

"When I was acutely ill in March 2020, I was rushed to A&E, gasping for breath ... I was told I was having a panic attack"

Despite being incredibly lucky to avoid hospitalisation, as the months passed my anticipated recovery never came either. I found I existed in a new state, somewhere between healthy and critically ill. But most frighteningly of all – somewhere forgettable. Despite the sheer number of people with Long Covid, this is a condition that renders both itself and its sufferer invisible. We hide in plain sight, bedridden by bouts of breathlessness and fatigue, silenced by waves of dizziness and nausea – just as the illness itself evades many (but not all) traditional modes of medical investigation. It was this feeling of invisibility that pushed me to explore further.



It turns out that for centuries, patients have survived epidemics only to have their lives changed by the seemingly endless nature of their symptoms. In the late 1800s, doctors noted 'altered cognition' (what we might now call 'brain fog', a common symptom of

Cont'd P14

The Invisibility Of Long Covid *(Cont'd from P13)*

Long Covid) in survivors of the 1889 and 1892 Russian flu pandemics. Similarly, smallpox and **polio** are now known to cause long-lasting conditions in the months, years, and decades following initial infection.

Recently, the scale of post-polio syndrome has become clear – thirty years after infection, up to 85% of survivors, including those who had a relatively mild original case, may develop muscle weakness and pain. Long Covid is far from the first post-viral condition to emerge en masse in the wake of a pandemic.

"Long Covid patients have had to combat a wave of misinformation and prejudice in order to access medical care"

The marks of epidemic-triggered post-viral conditions can be seen throughout history; but these patients are often forgotten as soon as the acute phase is over. Even the 1918 'Spanish Flu' pandemic, to which COVID-19 is most often compared in the media, provoked post-viral conditions in survivors. Historian Laura Spinney describes the scale of the issue as significantly impacting economies, just as Long Covid has begun to do today: in Tanzania, 'Long Flu' triggered "the worst famine in a century" as fatigue prevented workers from planting the fields. The 'Spanish Flu' infected one in three people on Earth, and left up to 100 million dead – and yet was largely written out of collective memory, along with those who suffered from 'Long Flu'.

But there is no need for Long Covid to go the way of 'Long Flu': instead, it could present a turning point, as patients are fighting to define the condition on their own terms. Even the name 'Long Covid' originated from the patient community on Twitter, opposing the medical terminology of 'Post-Covid Syndrome'. Access to social media has broken down some of the isolated nature of our condition. People with Long Covid might not be healthy enough to go out onto the streets and campaign for treatment, but – unlike in the past – we can engage in new forms of activism. Scholars such as Felicity Callard have argued that Long Covid may well be the first illness to be identified and articulated by a patient community on social media. Contemporary medicine, technology and globalisation allow us to construct online networks which have successfully drawn attention to this illness, named its symptoms and called on medical professionals to investigate further. We have been able to raise public awareness of the risks of Long Covid and create solidarity across people with many different post-viral conditions.

But defining the disease is only half the struggle. When I was acutely ill in March 2020, I was rushed to A&E, gasping for breath and on the brink of collapsing – only to be told that, as a young woman, I was not in respiratory distress; instead, my symptoms must be a panic attack. In fact, my lungs were severely inflamed by COVID-19 infection. It's only now, three years later, that I've managed to access specialist Long Covid NHS treatment to redress the lingering damage done to my respiratory system. In the intervening time, I've had to take on the physical and mental burden of tracking and treating my own symptoms. It's a relief to finally be believed.

Long Covid patients have had to combat a wave of misinformation and prejudice in order to access medical care. This is far from unique: Chronic Fatigue Syndrome (also known as ME, another prevalent post-viral condition) was widely dismissed as hypochondria or a psychological problem until the late 1990s. I hope that there is a chance now for history to stop repeating itself: by sharing our symptoms, knowledge and stories, Long Covid patients can challenge the common tendency to dismiss our experiences.

As this pandemic recedes into the past, we only ask one thing: don't forget us.

Post-Polio Syndrome In Sweden

The risk of post-polio syndrome among immigrant groups in Sweden

Authors: Per Wändell, Kristian Borg, Xinjun Li, Axel C. Carlsson, Jan Sundquist & Kristina Sundquist

Source: www.nature.com/articles/s41598-023-33240-w
Scientific Reports volume 13, Article number: 6044 (2023) Cite this article

The following is an extract of the above-mentioned article. Click on the link for the full article and References.

Abstract
To examine the risk of post-polio syndrome (PPS) in immigrant groups using native Swedish-born individuals as referents. This is a retrospective study. The study population included all individuals aged 18 years and older registered in Sweden. PPS was defined as having at least one registered diagnosis in the Swedish National Patient Register. The incidence of post-polio in different immigrant groups, using Swedish-born individuals as referents, was assessed by Cox regression, with hazard ratios (HRs) and 99% confidence intervals (CI). The models were stratified by sex and adjusted for age, geographical residence in Sweden, educational level, marital status, co-morbidities, and neighbourhood socioeconomic status. In total 5300 post-polio cases were registered, 2413 males and 2887 females. Fully adjusted HRs (99% CI) in immigrants versus Swedish-born were 1.77 in men (1.52–2.07) and 1.39 (1.19–1.62) in women. Statistically significant excess risks of post-polio were found in the following subgroups: men and women from Africa, HRs (with 99% CI) 7.40 (5.17–10.59) and 8.39 (5.44–12.95), respectively, and Asia, HRs 6.32 (5.11–7.81) and 4.36 (3.38–5.62) respectively, and in men from Latin America, HR 3.66 (2.17–6.18). It is of importance to be aware of risks of PPS in immigrants settled in Western countries, and that it is more common in immigrants from regions of the world where polio is still prevalent. Patients with PPS need treatment and proper follow-up until polio has been eradicated through global vaccination programs.

Introduction
Poliomyelitis is an acute viral infection that historically mostly affected children. With improved hygiene, spreading of poliomyelitis will be reduced during childhood, and then also affects individuals later on in life, with an elevated risk of flaccid paresis. The strategy to eradicate polio is expressed by the World Health Organization (WHO) to be *"based on preventing infection by immunizing every child until transmission stops and the world is polio-free"*1.

Owing to vaccination campaigns and better sanitation, the disease has decreased substantially world-wide2, but still remains endemic in some countries1, i.e. Afghanistan, and Pakistan. Besides, some countries are listed as "outbreak countries", i.e. that they have stopped indigenous wild poliovirus, but are still experiencing re-infections, e.g. by imported poliovirus, and these include many countries in especially Africa, some countries in the Eastern Mediterranean Region, and also a few European countries1. Furthermore, some countries are listed as "key at-risk" countries, mostly many countries in Africa but also China, with low levels of immunity and surveillance and subsequently at risk of polio returning. The last great outbreak of poliomyelitis occurred in Sweden as in other Western countries in the 1950-ies, even if sporadic cases have occurred since then.

Long-term consequences or late effects of poliomyelitis are divided into sequelae of poliomyelitis and post-polio syndrome (PPS). The former is a condition which is non-progressive, and the latter is a condition with progression of increased muscle weakness and muscle atrophy as well as fatigue and pain3,4,5. Europe and other Western countries have given PPS an increased attention during the second half of the twentieth century. The primary criteria necessary for the diagnosis of PPS according to the March of Dimes criteria are: "a history of paralytic poliomyelitis, partial or complete recovery of neurological function followed by a period of stability (usually several decades), persistent new muscle weakness or abnormal muscle fatigability, and the exclusion of other causes of new symptoms"6. The prevalence of PPS has been reported to be between 15 and 80% of patients with previous polio, with variation depending on the criteria being used and populations being studied7. In Sweden, patients with post-polio have been surveyed, showing an ongoing deterioration8, most likely through ongoing

Cont'd P16

Post-Polio Syndrome In Sweden *(Cont'd from P15)*

neurodegeneration3. However, the exact etiology of PPS is not fully established, and there is ongoing controversy and the underlying processes have not been fully elucidated9. One study has found a correlation between spinal cord gray matter atrophy and muscle strength, and that this atrophy is associated with functional decline of PPS patients10. A study of polio survivors below 60 years of age with foreign background, has been undertaken in Sweden, showing that 50% originated from Asia, 30% from Africa, and only 10% from Europe11. Yet, the risk of post-polio in immigrants relative to the risk in the Swedish population or any other Western European country is, as far as we know, largely unknown. We hypothesize that there is an excess risk of post-polio corresponding to those countries and regions of the world where polio is still prevalent today.

The aim of this study was to examine the relative risk of PPS in foreign-born men and women compared to Swedish-born men and women.

In conclusion, we found a higher risk of PPSs in individuals from non-Western regions, especially from Africa and Asia. It is of importance to be aware of PPS in the whole healthcare system in Western countries, and that it is more common in immigrants from regions of the world where polio is still prevalent. PPS patients need treatment and follow-up for their lifetime. PPS will only disappear decades after the worldwide eradication of polio.

NHS Starts Polio Jab 'Catch Up'

NHS starts polio jab 'catch up' scheme for east London kids

By Mike Brooke

Source: www.eastlondonadvertiser.co.uk/ — 3rd June 2023

Parents in east London are being urged to make sure children are fully protected against polio and measles to guard against *"tragic consequences".*

The latest alert has been raised after traces of polio were found last year in sewage in east London.

An NHS vaccine "catch up" programme has been set up for children aged one to 11 who are behind schedule to get their jabs at primary schools, GP surgeries or community centres.

The programme, also including mumps and rubella vaccines, covers the eight local authority areas of Tower Hamlets, Hackney, The City, Newham, Barking and Dagenham, Waltham Forest, Redbridge and Havering.

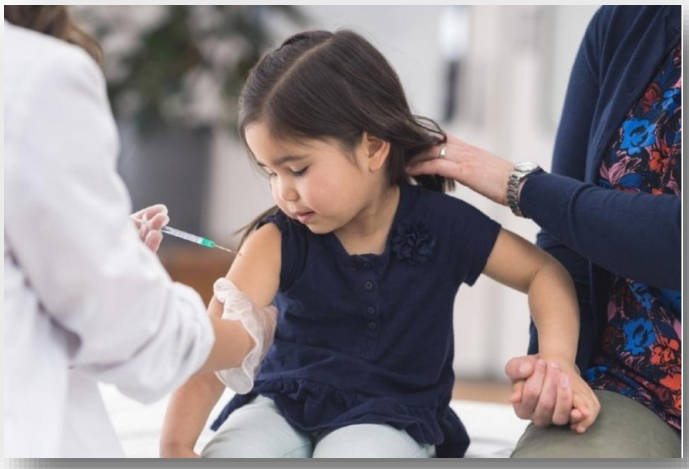
"Polio and measles can have tragic consequences if you are not vaccinated," Newham GP Muhammad Naqvi warned. *"It can lead to serious long-term health problems. Both infections are preventable with vaccinations."*

One-in-four children in east London have not had all their jabs by the age of five, according to latest NHS data — well below the 95 per cent target set by the World Health Organisation.

The UK is said to have *"a circulating form of polio"* which on rare occasions can cause paralysis in those not fully immunised.

Measles cases have also risen in London, with 33 confirmed reports this year.

Parents whose children may have missed a vaccine are being contacted by the NHS through their school immunisation service by health professionals who can answer questions and arrange appointments.



An NHS campaign is appealing for children to get their polio and measles jabs (Image: NHS)

Is Our Polio Vaccine Strategy Mistaken?

By Carlotta Jarach Micaela

Source: www.medscape.com — 16 March 2023

In September 2022, Gov. Kathy Hochul of New York declared a state of emergency for poliomyelitis. This is just the tip of the iceberg of a significant public health emergency. Polio still represents a threat to us all. And it's not just the United States that's experiencing a resurgence. There are also cases in London and Jerusalem, as well as in many other countries around the world.

It's been 34 years since the World Health Organization (WHO) launched the Global Polio Eradication Initiative (GPEI) with the ambitious aim of eradicating polio by the year 2000. *"The chosen strategy was to stop circulation of wild polioviruses, following the successful example of smallpox eradication. The task, however, turned out to be much more challenging than eradicating smallpox had been, since there are hundreds of asymptomatic poliovirus infections for each paralytic case that occurs, which substantially complicates critical surveillance,"* wrote researchers Konstantin Chumakov, PhD, DSci; Christian Brechot, MD, PhD; Robert C. Gallo, MD; and Stanley Plotkin, MD, in a fascinating perspective article recently published in *The New England Journal of Medicine* (*NEJM*).

Salk and Sabin

The search for vaccines to fight poliomyelitis started in the 1920s, but it wasn't until the 1950s that the search bore fruit with the introduction of two vaccines. The first was the Salk inactivated polio vaccine (IPV), which was developed in 1955. This vaccine, which is still in use today in Italy as part of the six-in-one vaccine, induces humoral immunity but doesn't induce sufficient immunity of the intestinal mucosa (the tissue that is usually infected by the poliovirus). This vaccine protects individuals from the most severe symptoms of the disease, such as paralysis, but doesn't confer immunity from contracting the virus, thus enabling its continued circulation.

The second vaccine was Sabin's live attenuated oral polio vaccine (OPV), which was developed in 1959. Unlike IPV, OPV induces both humoral and mucosal immunity, thus conferring protection against contracting the virus. OPV promotes herd immunity by stopping the virus from spreading.

Eradicating Polio

"We're nearing the end of a long haul which has seen the involvement of the scientific community, a variety of world leaders and their citizens, all focused on achieving a single objective: eliminating the three strains of polio as much as is possible. Yet in current conditions, achieving eradication, especially in the short term, I would say is not a given," commented Agnese Collino, PhD, biologist, popularizer, and scientific supervisor at the Umberto Veronesi Foundation. Collino also wrote the book *La malattia da 10 centesimi: Storia della polio e di come ha cambiato la nostra società* (*The 10-Cent Disease: The History of Polio and How It Changed Our Society*).

"The OPV had significant advantages over the IPV, being both cheaper and easier to administer, as it doesn't require syringes or specialized staff," Collino continued. *"It's the only vaccine capable of bringing us close to eradicating the virus. Therefore, initially, it replaced the IPV vaccine in nearly all countries. So, what's the issue with this vaccine? Being a live virus, it replicates in gut-associated tissues of the vaccinated person for a small period. If, unfortunately, in the few replications that this virus makes, it accumulates mutations that give it back its original aggressiveness, we could end up with a virus that is as aggressive as wild poliomyelitis. This is a very rare side effect — around one case in every 4 or 5 million doses administered — but it obviously requires a reassessment of the risk-benefit ratio in countries that have already eliminated the disease."*

And this is indeed what is happening in most countries using the Salk vaccine, while the only countries to still have endemic polio — Afghanistan and Pakistan — continue to use the OPV vaccine to try to eliminate wild poliovirus. *"The problem,"* said Collino, *"is that obviously in the countries using OPV and not achieving sufficient immunization coverage, outbreaks of vaccine-derived poliovirus cases emerge, which can spread to other countries. So, we're in the paradoxical situation in which we need to eliminate a wild virus with a vaccine, which in turn may circulate a version of the same virus in that environment (circulating vaccine-derived poliovirus)."*

Long-Term Immunization Policies

In the article published in the *NEJM*, the authors emphasized that the focus must switch from eradication of the polioviruses — which is proving to be hard to achieve — to the development of new long-term immunization policies that will not only protect patients from paralytic disease, but also minimize the silent circulation of polioviruses.

"The current plan is to withdraw bivalent OPV within 3 years after the circulation of wild type 1 poliovirus is stopped, and then continue immunizations with IPV only," they wrote. *"The decision to withdraw OPV should be made not on the basis of the perceived absence of poliovirus*

Cont'd P18

Is Our Polio Vaccine Strategy Mistaken? *(Cont'd from P17)*

circulation, but rather on the basis of availability of ample supply of IPV and the readiness of vaccine-delivery infrastructure." According to the recommendation of the WHO Strategic Advisory Group of Experts on Immunization, the IPV-only phase should continue for 10 years after the withdrawal of OPV, at which time the question of whether polio immunization may become optional can be discussed.

"I find that, lately, in medical and public debate, we're talking very little about one key aspect," said Collino, *"and this is the fact that it's very difficult to be certain that we can achieve total eradication of polio, especially in the short term, if most of the world uses the IPV vaccine. Without scrupulous sampling of wastewater — sadly not done everywhere — we cannot know with absolute certainty in which countries polio is still circulating, untraced in asymptomatic people, also because of IPV's ability to prevent the only distinctive symptoms of the disease."*

Which Way Forward?

According to the authors of the *NEJM* article, there are two big limitations in the current strategy of focusing on polio eradication. First, setting a time horizon for the elimination of polio vaccines discourages manufacturers from investing in research and development of better vaccines. Second, cessation of polio vaccination sends a wrong signal to the public that vaccination against polio is not needed if there is no detected virus circulation. This signal contributes to vaccine hesitancy and immunity gaps.

"I'm more optimistic regarding the goal of eradication," said Collino. *"The same authors cite the development of a new version of the Sabin vaccine for the type 2 strain of the poliovirus, which has been modified to have more mutations. The presence of more mutations in this attenuated virus is what lowers the chances of the vaccine-derived virus from gaining ground (ie, managing to regain aggressiveness by replicating itself in the mucosa). In 2 or 3 years, we could have a novel OPV comprising all three strains. I think we need to collectively discuss the possibility that these new vaccines, which would have the advantages of the oral vaccine without the risk of serious events like vaccine-derived polio, could help end the fight against polio once and for all.*

"I agree with the authors in their belief that our strategy should be reassessed against the initial objective of the GPEI," added Collino, *"but the prospect of having to shelve eradication in favor of lifetime vaccinations against polio, after all of the efforts made over the past 70 years, seems, on the one hand, sad — although not far-fetched — and, on the other, not yet a necessity in light of new vaccine tools. Personally, I would assess what the global role of the novel OPV could be: no longer an emergency tool only to be used in at-risk regions where outbreaks of vaccine-derived polio cases emerge, but as a possible alternative vaccine to the IPV. Obviously, with a gradual switch from one vaccine to the other."*

This article was translated from Univadis Italy.

Rotarians Have To Finish The Job Of Eradicating Polio

Rotary International President insists Rotarians have to finish the job of eradicating polio

Source: polioeradication.org/ — 15 March 2023

Rotary International President, Jennifer Jones, is on a brief tour of London. Speaking at the House of Commons she said that Rotary had to deliver on its promise to the children of the world that it would help to eradicate polio.

Jennifer warned Rotarians against polio fatigue by insisting that the world has never been closer to winning the battle against the disease.

Speaking at an End Polio Now event at the House of Commons, the Canadian said she was mindful how Rotarians have heard over many years how close the world was the seizing victory.

"We get fatigued sometimes and people wonder when is it going to happen," said Jennifer.

"But the reason for nights like tonight is to let you know that we are within reach and we have to have the confidence that we are doing to do this and keep our promise to the children of the world."

Read more on Rotary's Great Britain and Ireland website.

A Better But Not Perfect Polio Vaccine

By Donald Hackett
May 27, 2023

Fact checked by Robert Carlson, MD
May 28, 2023

nOPV2 vaccine is used in Africa

Source: www.precisionvaccinations.com — 27 May 2023

KINSHASA (Precision Vaccinations)
The World Health Organization (WHO) Director-General recently convened the thirty-fifth meeting of the Emergency Committee under the International Health Regulations on the international spread of poliovirus.

On May 3, 2023, the Committee reviewed data on wild poliovirus (WPV1) and circulating vaccine-derived polioviruses (cVDPV) in the context of the global target of eradication of WPV and cessation of outbreaks of cVDPV2 by the end of 2023.

Globally there remain only three genetic clusters of WPV1, a significant reduction in the genetic diversity of WPV1 which indicates that chains of transmission have been reduced to two in the remaining endemic countries, Pakistan and Afghanistan, and one in Africa.

This WHO technical update included the Democratic Republic of the Congo (DR Congo).

The WHO committee noted that in the African Region, which now uses novel OPV2 (nOPV2), two new cVDPV2 detected in DR Congo have emerged from nOPV2's use.

Approximately 600 million nOPV2 doses have been administered in more than 28 countries worldwide as of May 2023.

However, nOPV2 retains its enhanced genetic stability compared to Sabin oral polio vaccine (OPV2), with most isolates analyzed through whole genome sequencing indicating no or minimal changes in the genetic structure of nOPV2.

Only 2% of all isolates reported so far have shown evidence of losing essential genetic modifications that reduce neurovirulence due to recombination, and these have only been detected in Africa versus the expected 75% for Sabin OPV2.

Although encouraged by the reported progress, the WHO Committee unanimously agreed that the risk of the international spread of poliovirus remains a Public Health Emergency of International Concern and recommended the extension of Temporary Recommendations for a further three months in 2023.

In the U.S., the Centers for Disease Control and Prevention (CDC) reissued its Alert — Level 2, Practice Enhanced Precautions regarding polio outbreaks.

According to CDC, 70% of people infected with polio experience no symptoms.

A smaller proportion of people will develop more severe symptoms that affect the brain and spinal cord, including Paresthesia, Meningitis, and Paralysis.

As of March 2023, the CDC says adults who previously completed the whole routine polio vaccine series receive a single, lifetime booster dose of polio vaccine before traveling to any listed destination.

While the nOPV2 vaccine is not offered in the U.S., the inactivated polio vaccine (IPV) has been given since 2000.

Vaccine effectiveness estimates (Feb. 2023) against paralytic polio range from 36%–89% for one IPV dose, and vaccination appears to reduce the mean quantity of shed poliovirus by 63%–91%.

As of May 27, 2023, polio vaccinations are offered at health clinics and community pharmacies in the U.S.

(See global polio case map graphic on Page 20.)

References For "Winter Weight" Article *(from Page 10)*

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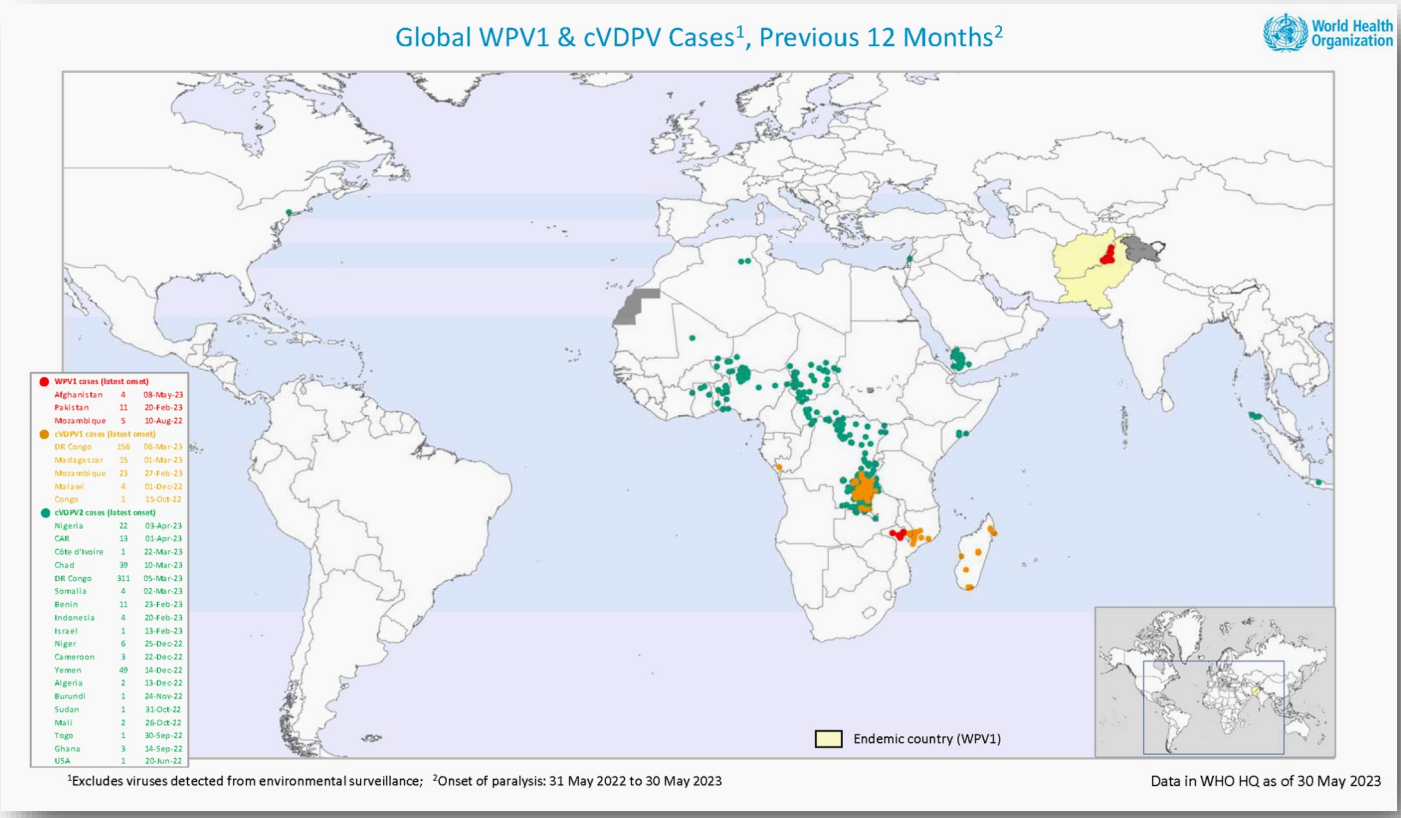
Global Polio Case Map



GPEI polio case map May 26, 2023

Polio this week as of 31 May 2023

Headlines:

- Last week, a cross-partnership Polio Outbreak Response Assessment team conducted a comprehensive analysis in Kiev, Ukraine. The team commended local and national public health authorities on the tremendous efforts undertaken in the country to strengthen immunization services and poliovirus surveillance, amid very challenging conditions. In relation to the circulating vaccine-derived poliovirus (cVDPV2 – most recent isolate December 2021), the group recommended to the WHO Regional Office for Europe to consider closing the outbreak, based on the team's assessment of surveillance and immunization activities. Debriefing with the Deputy Minister of Health and the Ukraine Public Health Centre, the team further recommended that the Ministry of Health submit a comprehensive report of activities to the European Regional Certification Commission of Poliomyelitis eradication.
- Africa's largest polio vaccination drive since 2020 launched, aiming to reach 21 million children. *"This is a crucial undertaking to close vaccination gaps in the wake of the COVID-19 pandemic and will provide millions of children with vital protection from the risk of irreversible polio paralysis,"* – Dr Matshidiso Moeti, WHO Regional Director for Africa. Read more…
- One world: coming together to achieve one common goal. From G7, to World Health Assembly, to Rotarians at this week's Rotary Convention in Melbourne, leaders and stakeholders from around the world unanimously reaffirm their support to achieving a lasting polio-free world. Read more here.
- Novel OPV2 rollout: To date, approximately 620 million doses of nOPV2 have been administered across 29 countries under its WHO Emergency Use Listing (EUL). An additional 14 countries have met the requirements for nOPV2 use in the event of an outbreak. For more information on nOPV2, visit: www.polioeradication.org/nOPV2

Summary of new polioviruses this week:

Afghanistan: one WPV1 case; **Pakistan**: two WPV1 positive environmental samples; **Algeria**: one cVDPV2 positive environmental sample; **Burundi**: four cVDPV2 positive environmental samples; **Central African Republic**: one cVDPV2 case; **United States of America**: 16 cVDPV2 positive environmental samples

Polio This Week

Global Circulating Vaccine-derived Poliovirus (cVDPV) as of 30th of May 2023

	Country	AFP cases (Paralysis onset between 2020-2023)					Other sources (Human)[2] (Collection between 2020-2023)					Other sources (Environment) (Collection between 2020-2023)				
		2020	2021	2022	2023	Onset of most recent case	2020	2021	2022	2023	most recent collection date	2020	2021	2022	2023	most recent collection date
cVDPV1[1]	DR Congo			146[1]	14	06-Mar-23			5		09-Oct-22					
	Madagascar	2	13	14	9	01-Mar-23		25	11	1	19-Feb-23		31	104	38	27-Feb-23
	Mozambique	1		22	3	27-Feb-23			1		25-Oct-22					
	Malawi			4		01-Dec-22			1		19-Sep-22					
	Congo			1		15-Oct-22										
	Yemen	31	3			27-Mar-21					07-Jul-19					
	Malaysia	1				14-Jan-20						9				13-Mar-20
	Total type 1	35	16	187	26		0	25	18	1		9	31	104	38	
cVDPV2[1]	Algeria			3		13-Dec-22			2	3	05-Jan-23			18	13	02-May-23
	Burundi			1		24-Nov-22				2	27-Jan-23			6	10	19-Apr-23
	Central African Republic	4		6	7	01-Apr-23	1			12	18-Apr-23	2	1	8		23-Nov-22
	Nigeria	8	415	48	6	09-Apr-23	8	204	28	2	29-Mar-23	5	303	82	13	10-Apr-23
	Côte d'Ivoire	64			1	22-Mar-23	25				01-Nov-20	95		3		18-Jul-22
	Chad	101		44	6	10-Mar-23	17		4	3	13-Jan-23	3	1	5		01-Dec-22
	DR Congo	81	28	353[1]	30	05-Mar-23	95	6	30	1	19-Jan-23	1	3	9	1	22-Feb-23
	Somalia	14	1	5	2	02-Mar-23	13		4		31-Aug-22	26	1	6		22-Dec-22
	Benin	3	3	11	2	23-Feb-23		2	1		01-Jun-22	5	1	8	3	21-Feb-23
	Indonesia			1	3	20-Feb-23			3	7	01-Jan-23					
	Botswana													4	1	16-Feb-23
	Israel				1	13-Feb-23								55		24-Oct-22
	Niger	10	18	15		25-Dec-22	2	1	3		19-May-22	9		14	1	12-Jan-23
	Malawi														1	02-Jan-23
	Cameroon	7	3	3		22-Dec-22	4	3			29-Oct-21	9	1			25-Oct-21
	Yemen		66	162		14-Dec-22		17	33		09-Dec-22		13	25		28-Nov-22
	Zambia													3		06-Dec-22
	Sudan	58		1		31-Oct-22	11				01-Oct-20	14		1		28-Nov-22
	United Kingdom													6		08-Nov-22
	Mali	52		2		26-Oct-22	3				15-Aug-20	4				29-Aug-20
	United States of America			1		20-Jun-22								30		20-Oct-22
	Ghana	12		3		14-Sep-22	10		4		01-Jun-22	20		19		04-Oct-22
	Togo	9		2		30-Sep-22	9				09-Jul-20			2		06-Sep-22
	Canada													2		08-Sep-22
	Egypt											1	12	6		29-Aug-22
	Djibouti												7	12		22-May-22
	Ethiopia	37	10	1		01-Apr-22	7				19-Oct-20	4				28-Dec-20
	Mozambique		2	4		26-Mar-22					17-Dec-18					
	Eritrea		1	1		02-Mar-22										
	Senegal		17			27-Oct-21		34			17-Nov-21	1	14	1		17-Jan-22
	Burkina Faso	68	2			09-Jun-21	12				19-Sep-20		1			28-Dec-21
	Ukraine		2			24-Dec-21		18			09-Oct-21					
	Mauritania							4			19-Jul-21		7			15-Dec-21
	Uganda												2			02-Nov-21
	Gambia												9			09-Sep-21
	Pakistan	135	8			23-Apr-21	2				11-Nov-20	135	35			13-Aug-21
	Guinea	44	6			01-Apr-21	1				05-Sep-20	1	2			11-Aug-21
	Guinea-Bissau		3			15-Jul-21		1			26-Jul-21					
	Tajikistan	1	35			25-Jul-21		22			24-May-21		17			22-Mar-21
	Afghanistan	308	43			09-Jul-21	36	2			03-May-21	175	40			23-Jun-21
	Congo	2	2			10-Feb-21	2				12-Oct-20	1	3			01-Jun-21
	Sierra Leone	10	5			28-Feb-21	6	8			19-Mar-21		9			01-Jun-21
	Liberia		3			28-May-21	2	5			21-Jan-21	7	14			20-Apr-21
	South Sudan	50	9			10-Apr-21	19	5			25-Feb-21	6				01-Dec-20
	Iran											3	1			20-Feb-21
	Kenya						1	2			25-Jan-21	1	1			13-Jan-21
	Angola	3				09-Feb-20					31-Oct-19					
	Malaysia											5				04-Feb-20
	Philippines	1				15-Jan-20					23-Nov-19	4				16-Jan-20
	Total type 2	1082	682	677	58		286	384	112	30		537	498	325	43	
cVDPV3[1]	Israel			1		12-Feb-22			3		24-Mar-22	1	5	25		15-Mar-22
	Occupied Palestinian Terr.												7	9		12-Mar-22
	China						1				22-Jul-20		1			25-Jan-21
	Total type 3	0	0	1	0		1	0	3	0		1	13	34	0	
Gender	Female (all sero type)	493	295	368	34											
	Male (all sero type)	610	400	490	49											
	Gender Unknown	10	3	4	1											

Environmental surveillance for poliovirus in selected sewage sites established and working

Changes from previous week