



Polio Survivors Serving Others

Information & Inspiration
For All Polio Survivors and their Families

The PA Polio Network

www.polionetwork.org

August, 2023

Our Mission:

To Be in Service Providing Information to Polio Survivors, Post Polio Support Groups, Survivor's Families and their Caregivers.

Inside this Issue:

Our Youngest Advocates, Avery and Ariana are back with a review of another children's book - *Kelly Gets a Vaccine*,

by Lauren Block MD MPH and Adam E. Block PhD. These honest reviews about children's books BY children, can be helpful when you are purchasing books.



Exercise Guidelines for Polio Survivors - A part of their 2023 Lecture series, Post-Polio Health International has shared their fascinating conversation with Carol Vandenakker Albanese, MD

POLIO: As of May 21st of this year, it is the World's Only Public Health Emergency of International Concern. As we lead up to World Polio Day on October 24th, this article from the Global Polio Eradication Initiative (GPEI) does a great job explaining the reality of what's happening around the world.

“ . . . poliovirus still poses a risk of international spread. As noted with detections of variant poliovirus around the world in several previously polio – free countries, including Canada, Israel, the United Kingdom of Great Britain and Northern Ireland and the United States of America, poliovirus anywhere is a threat to children everywhere.”

“Update on Vaccine-Derived Poliovirus Outbreaks Worldwide.” In his second Post-Polio Article Review, Richard L. Bruno, HD, PhD explains this report from the Morbidity and Mortality Weekly Report (MMWR), prepared by the Centers for Disease Control and Prevention (CDC). “Since polio survivors are interested in the eradication efforts around the world, this article in our series ‘Post-Polio Article Review’ summarizes the June 19, 2023 MMWR, describing the hiccups causing vaccine-derived poliovirus outbreaks worldwide.”

Some Polio Survivors struggle with the Inability to Manage the Heat. We have had a fascinating response to an article in Bruno Bytes (2nd Qtr 2023).

Team Survivor 2023 – We HAVE been making a difference.

WE'RE STILL HERE! WEEK—October 8–14, 2023

PHI's 17th annual post-polio awareness campaign will take place October 8 -14, 2023.

They are once again inviting you to help contribute to another successful campaign.

Spread the word about the late effects of polio and remind the world that

[WE'RE STILL HERE!](#)



POST-POLIO ARTICLE REVIEW: "Update on Vaccine-Derived Poliovirus Outbreaks Worldwide."

By [Richard L. Bruno, HD, PhD](#)

Director, International Centre for Polio Education

The Morbidity and Mortality Weekly Report (MMWR) is prepared by the Centers for Disease Control and Prevention (CDC) to report on causes of death and illness in the U.S. and around the world. The MMWR reports are comprehensive, data packed. . . and long, not to be read in bed unless you need to treat insomnia. But these detailed reports are vital if you want to know about the cause and treatment of just about any disease, including polio.

Since polio survivors are interested in eradication efforts around the world, this article in our series "POST-POLIO ARTICLE REVIEW" summarizes the June 19, 2023 MMWR describing the hiccups causing vaccine-derived poliovirus outbreaks worldwide . . .

[Update on Vaccine-Derived Poliovirus Outbreaks Worldwide: January 2021-December 2022](#)

Morbidity & Mortality Weekly Report. 2023;72(14): 366-371.

With the September, 2015 elimination of wild (naturally occurring) type 2 poliovirus, the use of the Sabin-strain oral poliovirus vaccine type 2 (OPV2) was stopped in April, 2016. Countries switched from the trivalent vaccine (containing poliovirus types 1, 2 and 3) to the bivalent form of OPV, which contains only poliovirus vaccine types 1 and 3.

But the removal of a vaccine for type 2 poliovirus left people susceptible to the still-circulating type 2 oral polio vaccine strain and its unfortunate ability to circulate and, without causing symptoms, reproduce in the intestines of 90% of those infected. In the intestines, the vaccine poliovirus can genetically mutate, become neurovirulent (damaging to neurons) and itself cause paralysis. There were 959 OPV2-polio cases globally in 2020 alone, most in Africa.

In 2021, a novel Oral Polio Vaccine type 2 (nOPV2) - a more genetically stable vaccine than Sabin OPV2 that was much less likely to mutate and cause paralysis, was released. Unfortunately, the extensive use of nOPV2 during 2021-2022 resulted in a lack of adequate nOPV2 supply that has often been insufficient for prompt response to polio outbreaks.

Vaccine-Derived Polio Virus Data

- During 2021–2022, there were 88 active, community circulating Vaccine-Derived Polio Virus (cVDPV outbreaks), 76 (86%) caused by cVDPV2.
- The total number of paralytic cVDPV cases during 2020–2022 decreased by 36%, from 1,117 to 715; however, the proportion of cases caused by cVDPV type 1 increased from 3% in 2020 to 18% in 2022, The increased proportion of cVDPV1 cases follows a substantial decrease in global routine immunization due to preventive COVID immunization campaigns during the pandemic (2020–2022).

Continued . . .

- cVDPV2 (Circulating Vaccine Derived Poliovirus Type 2)
 - The decrease in the number of new cVDPV2 cases during this period is likely associated with the use of nOPV2 for outbreak response. Since the first cVDPV2 outbreak response using nOPV2, as of March 2023 590 million nOPV2 doses have been administered in 24 countries. Whereas the number of cVDPV2 appearances has declined during the 2021–2022 COVID pandemic and recovery period, international spread has not. During the last 2 years, 17 countries have experienced their first post-nOPV2 vaccine use cVDPV2 outbreaks, reflecting poor outbreak control in the country of origin.
- cVDPV1 (Circulating Vaccine Derived Poliovirus Type 1)
 - In 2022, the number of new cVDPV1 outbreaks increased substantially and primarily affected countries in sub-Saharan Africa. Routine immunization coverage, which was already low in many areas of outbreak countries, decreased after the start of the COVID-19 pandemic. Plus, the suspension of preventive and supplementary bOPV (Bivalent Oral Polio Vaccine type I and type III) vaccination have resulted in an increased susceptibility to cVDPV1 outbreaks.
 - During 2022, the national proportion of African children who received their third dose of polio vaccine by age 1 year was 70%, compared with 74% in 2019.

Conclusion.

Increasing routine immunization coverage, strengthening poliovirus surveillance and conducting timely and high-quality supplementary immunization in response to cVDPV outbreaks are all needed to interrupt global cVDPV transmission and reach the goal of no cVDPV in 2024.

[Richard L. Bruno, HD, PhD](#)



Join Team Survivor 2023

www.polionetwork.org/team-survivor

What is Team Survivor?

- It is a means for Polio Survivors, our friends and families to come together in a thriving, spirited way to support the Rotary Foundation and their partners rid the world of this terrible disease.
 - In just six years, survivors and family members in our network have sent donations providing more than 100,000 Polio vaccinations to children in the most difficult-to-reach corners of the world.
 - Because of the Gates Foundation 2 for 1 Match - Your \$25 Donation will become \$75
 - Checks mailed to us (made out to the Rotary Foundation) will go directly to Rotary International. You will receive a receipt from both us AND the Rotary Foundation.
 - NO donation is too small. That's what makes it so special.
- You CAN donate to Polio Plus through Team survivor online. Go to [Raise for Rotary](#) – directly (or) go to the [Team Survivor](#) page of our website



We have had a fascinating response to an article in [Bruno Bytes](#) 2nd Qtr 2023 –

[The Inability to Manage the Heat](#)

So much has been published about Polio Survivors and the cold, yet little has been published about this issue.

“The poliovirus damaged the neurons in the brain and spinal cord that control body temperature by controlling the sympathetic nervous system. Your brain’s thermostat (in the hypothalamus) should turn on sympathetic nerves to cause skin veins and arteries to constrict when it’s cold, to keep warm blood away from the skin surface thereby preventing loss of body heat. The reason polio survivors have cold and purple “polio feet” is that there isn’t a signal from the brain thermostat that reaches skin blood vessels to tell them to constrict. So hot blood flows to the vessels near the surface of the skin, heat in the blood radiates away from your body and your skin gets cold, which passively makes the arteries clamp down, trapping cold, purple blood in the little veins and, voilà, “polio feet.”

But if the poliovirus damaged neurons that control body temperature, shouldn't polio survivors have trouble with heat as well as cold? “

After a complete explanation, Dr. Bruno comes to this conclusion.

“We know that polio survivors have cold legs and feet ultimately because arteries clamp down and prevent hot blood from the body's core heating the skin’s surface. Perhaps the inability to get rid of excess body heat results from the same problem - surface arteries not opening - that leads to symptoms of heat intolerance and triggers sweating above the waist to try to cool the body.”

“It seems clear that if you can’t stand the heat you may be a polio survivor.”

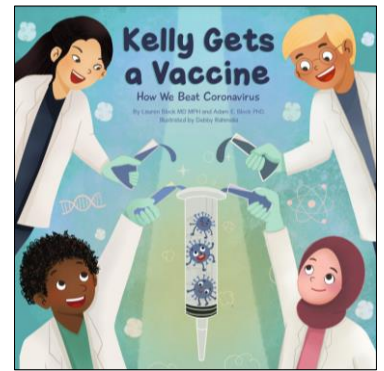
The complete article is easily available on our website – www.polionetwork.org

- Go to: Articles/Resources and click on “Bruno Bytes”.
- There you will find (in chronological order) the FULL inventory of these Q&A’s that have been published as a collaborative by the International Center for Polio Education and our Network since 2014.
- Looking for a specific topic? Click on the Index/Category button.

[INDEX/CATEGORIES](#)

Kelly Gets a Vaccine: How We Beat Coronavirus

A Book Review by Avery and Ariana



Hi everyone! We're back.

We're 9 and 11. We love both reading and science. Today, we read The book Kelly Gets a Vaccine, by Lauren Block MD MPH and Adam E. Block PhD. This book is about a little girl named Kelly and her little brother, Joey. It's time for them to get their COVID-19 vaccine and Kelly is ready and willing, but Joey is not sure if he wants to get the shot. Their mom is a doctor and tries explaining the science behind vaccines.



This book looks like it's a kids, paperback book. It may be for kids, but it's not an easy book for kids to read. It has a lot of big words and a lot of pages. A few of the big words we had to stop reading and talk about with our Mom are: *asymptomatic, eradicated, viral vector, placebo and herd immunity*. Ariana: "I've heard of a few of them, and the book does a good job of explaining them. The book also has some good graphs."

Ariana: "The book told me a lot of facts. It reminded me that we all get the same vaccines and that you shouldn't be scared to get them. We get them to protect ourselves and to protect others who cannot get the vaccines."

We learned information, but we don't know if it's stuff that we will remember. Ariana: "The book was so long that I kind of lost focus. I wanted it to be over before it ended. It's definitely not a book I would pick up and read to myself or to a friend." Learning about vaccines can be fun. We wish we liked this as much as the first two books we read, but it's OK to like some books better than others.

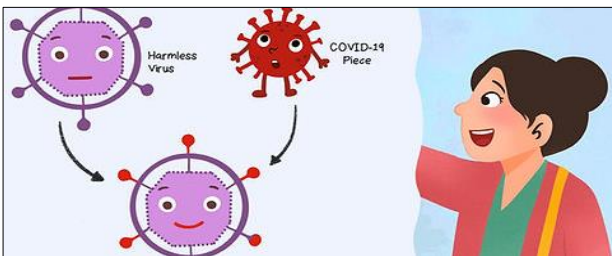
Thanks for reading our review.

Avery & Ariana

Avery and Ariana's "Thumbs Up" reviews* of [Ava the Antibody Explains](#) and [The Polio Pioneer: Jonas Salk and the Polio Vaccine](#) are available on our website and in our August, 2022 and April 2023 newsletters.

*Note: These reviews are intended as opinion only and not as professional advice.

Excerpts from "[Kelly Gets a Vaccine](#)"



"How does it work? asks Kelly. One type of vaccine is called an mRNA vaccine. This is a new kind of vaccine made using a protein that the COVID-19 virus has that people do not have."



"The small piece of virus you are injected with is harmless. It tricks your cells to make the outside coating of the coronavirus without the rest of the virus. Once your body makes the coronavirus protein coating, your immune system can see if any coronavirus enters and has already built an army to attack it."

Polio: The World's Only Public Health Emergency of International Concern

“In May 2014, the WHO Director-General declared the international spread of poliovirus a Public Health Emergency of International Concern (PHEIC) under the International Health Regulations (IHR 2005), a designation that allows for accelerated response, emergency disbursement of funding and mitigation measures, such as vaccination of international travellers, to reduce the risk of spread of poliovirus. Nine years and several expert-led reviews later, polio retains its PHEIC status. COVID-19 and mpox have joined and recently left the list of diseases with this designation, but poliovirus still poses a risk of international spread. As noted with detections of variant poliovirus around the world in several previously polio – free countries, including Canada, Israel, the United Kingdom of Great Britain and Northern Ireland and the United States of America, poliovirus anywhere is a threat to children everywhere.

Despite retaining its PHEIC status, the polio eradication programme has made tremendous strides in the last 3 and a half decades. These efforts have brought the world to the best yet position in terms of achieving our goal of eradication.

In WHO's Eastern Mediterranean Region, home to constantly brewing humanitarian crises and the last 2 countries endemic for wild poliovirus – Afghanistan and Pakistan – transmission has been cornered to the smallest ever geographical location. Up until now, in 2023, 2 cases of wild poliovirus have been reported from Afghanistan and one from Pakistan – all from the endemic zone in the East Region of Afghanistan and southern districts of Khyber Pakhtunkhwa, Pakistan. Both countries have also cut down the genetic diversity of the virus since 2020 – from 8 to one in Afghanistan and 11 to one in Pakistan.

Years of extraordinary efforts by frontline workers, national and local authorities, the partners of the Global Polio Eradication Initiative (GPEI) and donors the world over have led us to our best yet opportunity to snuff out this virus once and forever.

The footprint of circulating variant poliovirus in the Region has also reduced considerably in recent years. The Region has fewer outbreaks today than it had a year ago. Last year, Sudan closed its 2020 cVDPV2 outbreak and Islamic Republic of Iran closed a poliovirus event, while both Djibouti and Egypt are no longer detecting any poliovirus in environmental samples and are poised to formally close their outbreaks in a few weeks.

Polio surveillance systems have never been more sensitive. 18 of the Region's 22 countries have established environmental surveillance systems to complement the networks of



A doctor and surveillance volunteer checks a child for signs of paralysis in a clinic in Shawalikot district, Afghanistan. Source ©WHO / Jawad Jalali

surveillance workers and health care providers actively searching for acute flaccid paralysis in children. In addition to countries at high risk of polio, the list also includes longstanding polio-free countries, such as Bahrain and Saudi Arabia, underscoring the importance of surveillance in all countries as the Region moves towards certification.

Investments made in polio have demonstrated their value for broader healthcare, such as during COVID-19 when the polio assets supported testing, vaccination and risk communication. The Region is making progress with polio transition to ensure countries maintain much-needed essential functions, even as funding transitions away from GPEI financing to national domestic resources or WHO base budget. These efforts will strengthen disease surveillance, routine immunization for children, and outbreak preparedness and response capacities.

The polio programme regularly engages with Member States through governing bodies such as the Regional Subcommittee for Polio Eradication and Outbreaks and uses expert advice by technical advisory groups of experts to review progress in the Region and support countries to stop transmission and maintain robust surveillance and immunization programmes. But to deliver on the promise of a polio-free world for future generations, there is still more work to be done. Across the Region, we are in a race against time to intensify surveillance, enhance the quality of immunization campaigns, and strengthen preparedness for and response to polio outbreaks, while ensuring any gender-related barriers are mitigated across all levels of the programme.

As WHO Member States gather in Geneva for the 76th annual World Health Assembly, now is the time to dig deep, draw on our strength as a partnership and the strength of donors and host governments, and achieve the goal we declared more than 3 decades ago.”

Article quoted from the [Global Polio Eradication Initiative](#)
Originally published on [WHO's EMRO website](#).



THANK YOU for your uplifting comments and your generous [donations](#).
Your words inspire us. Your donations are the means by which we are able to continue paying for the necessary expenses to continue our work serving polio survivors and our caregivers,
all over the US and abroad.

Exercise Guidelines for Polio Survivors

A part of their [2023 Lecture series](#), Post-Polio Health International has shared their fascinating conversation with Carol Vandenakker Albanese, MD

Dr. Vandenakker Albanese is a Health Sciences Clinical Professor, the Associate Residency Program Director and Director of Faculty Development in the Department of Physical Medicine and Rehabilitation at the University of California, Davis Medical Center.

She first established a Post-Polio Clinic at the University of Miami in 1993. With her move to Sacramento in 2001, she established a Post-Polio Clinic at UC Davis Health.

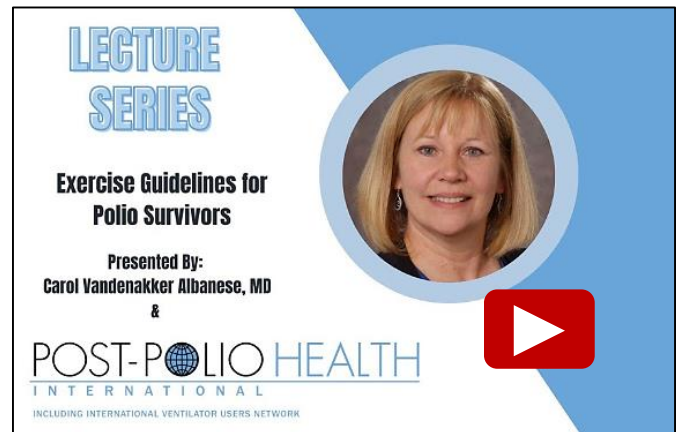
Dr. Vandenakker is board certified in Physical Medicine and Rehabilitation. Her clinical practice encompasses diagnosis and non-operative treatment of spine conditions and post-polio related problems. Her research and publications have focused on exercise, post-polio syndrome, and aging with disability.

She lectures locally, nationally and internationally on issues regarding polio survivors. She serves on the Post-Polio Health International Board of Directors as well as the PHI Medical Advisory Committee.

Our complete inventory of articles by [Carol Vandenakker-Albanese](#) along with her series of videos are easily available in the Living with Post-Polio Syndrome section of our website. Look for it under the heading "Post-Polio Syndrome". www.polionetwork.org

We are happy to be able to share this series in the [Living with Post-Polio Syndrome](#) page of our website.

www.polionetwork.org/living-with-post-polio-syndrome





Transitioning from www.papolionetwork.org to www.polionetwork.org

Here's our August Tip for using our new website.



www.polionetwork.org/living-with-post-polio-syndrome

Over the last few years, [Living with Post-Polio Syndrome](#) has been one of the most widely read pages on our website. This section contains articles and videos on many topics done by numerous professionals – all of whom have the “heart of a teacher”. It is easily located under the heading: Post-Polio Syndrome.

The articles are listed in chronological order (over many pages). The videos (located under the articles) are listed in alphabetical order by the Professional Contributor’s name.

There are three, clearly identified direct link “buttons” to:

- Diagnosing PPS,
- the updated Anesthesia Warning Card and
- PPS Symptom Checklist information.



Are you looking for a specific topic? Click on the Index/Category “Button”. With one click on the button, every index item in that section is listed alphabetically for easy access. “Click” on the topic of interest and the articles in that section will come up.

An example using the Index/Category Button –

- As of this date, there are seven articles in this section under the topic: Exercise.
 - When you click on that topic, six articles and a video (by 5 different authors) will appear.
- If you would like to read more by that author, just “click” on their name at the top of their article and you will go to their full body of written work.

Videos. Our Living with Post-Polio Syndrome page has a collection of videos from multiple professionals. Where you see their name/organization highlighted in red, “click” for more information.

Currently we feature videos from:

- [John R. Bach, MD](#)
- [Norma M. Braun, MD](#)
- [Richard L. Bruno, HD, PhD](#)
- [William M. DeMayo, MD](#)
- [Marny K. Eulberg, MD](#)
- Susan R. Perlman, MD (published by the [Salk Institute](#))
- [Polio Australia](#)
- [Post-Polio Health International](#)
- [Carol Vandenakker-Albanese, MD](#)
- [Daniel J. Wilson, PhD](#)

Note: The biographies/descriptions of our professional contributors are easily available. You will find them listed alphabetically, under the heading topic: Professionals



Join Team Survivor 2023

We are proud to be actively supporting these determined and very effective Polio eradication efforts.
What can YOU do?

Make a Donation to the Rotary Foundation for Polio Eradication.

- You will receive a confirmation of your donation from BOTH us and from Rotary International. For every dollar you donate, the Gates Foundation will turn it into three.
- Your \$10 will become \$30. That \$30 will provide an est. 48 vaccines in the most difficult to reach /war torn areas of the world.



QR Code to Raise for Rotary

1. Online to Team Survivor directly through the Rotary Foundation –

- Go to: www.raise.rotary.org/TeamSurvivor/celebration
- Note: Rotarian Donations will be credited to you and your Club through Raise for Rotary.

2. By US Mail:

- Make your check out to The Rotary Foundation
- Mail it to: PPSN Team Survivor, PO Box 557, Doylestown, PA 18901

3. Call your local Rotary Club.

Tell them you are a polio survivor and are grateful for their ongoing participation in Polio Plus.

**We have become part of the solution. Join Us.
When Polio exists anywhere, it is a threat to children everywhere.**

Complete This Form for Mailing a Check/Money Order

I would like to make the following donation to Rotary International's "Polio Plus" program.
I understand that their focus is to eradicate Polio through world wide vaccination.

NAME: _____

ADDRESS: _____

City: _____ State: _____ Zip: _____

Email: _____ Phone #: _____

Are you a Rotarian? Yes – District # _____ Rotarian ID (if available): _____

Are you a Polio Survivor ? _____

Is this Donation on behalf of a Polio Survivor? _____ Name: _____

Can we publish your name as a "Member" of Team Survivor? (Y/N) _____

Donation Amount: _____

**** Please make the check payable to: The Rotary Foundation**

Mail to: PA Polio Survivors Network Attn: Polio Plus
PO Box 557, Doylestown, Pa. 18901

Unable to print this form? Please include the same information on a plain sheet of paper.

Feel free to share this information with family and friends.

Contact us: papolionetwork@gmail.com (or) 215-858-4643

Tips for Preventing Heat-Related Illness

Stay **Cool**



Stay Cool

- **Wear Appropriate Clothing:** Choose lightweight, loose-fitting clothing.
- **Stay Cool Indoors:** Stay in an air-conditioned place as much as possible. If your home does not have air conditioning, go to the shopping mall or public library—even a few hours spent in air conditioning can help your body stay cooler when you go back into the heat. Call your local health department to see if there are any heat-relief shelters in your area.
- **Keep in mind:** Electric fans may provide comfort, but when the temperature is in the high 90s, they will not prevent heat-related illness. Taking a cool shower or bath or moving to an air-conditioned place is a much better way to cool off. Use your stove and oven less to maintain a cooler temperature in your home.
- **Schedule Outdoor Activities Carefully:** Try to limit your outdoor activity to when it's coolest, like morning and evening hours. Rest often in shady areas so that your body has a chance to recover.
- **Pace Yourself:** Cut down on exercise during the heat. If you're not accustomed to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, **STOP** all activity. Get into a cool area or into the shade, and rest, especially if you become lightheaded, confused, weak, or faint.
- **Avoid Hot and Heavy Meals:** They add heat to your body!

Stay **Hydrated**



Stay Hydrated

- **Drink Plenty of Fluids:** Drink more fluids, regardless of how active you are. Don't wait until you're thirsty to drink.
Warning: If your doctor limits the amount you drink or has you on water pills, ask how much you should drink while the weather is hot.
- **Stay away from very sugary or alcoholic drinks** - these actually cause you to lose more body fluid. Also avoid very cold drinks, because they can cause stomach cramps.
- **Replace Salt and Minerals:** Heavy sweating removes salt and minerals from the body that need to be replaced. A sports drink can replace the salt and minerals you lose in sweat.
- **If you are on a low-salt diet, have diabetes, high blood pressure, or other chronic conditions,** talk with your doctor before drinking a sports beverage or taking salt tablets.
- **Keep Your Pets Hydrated:** Provide plenty of fresh water for your pets and leave the water in a shady area.

Source: [CDC](#)



AUGUST

Team Survivor

Lets be part of the solution.



ALWAYS feel free to contact us.

Unless noted with the article, feel free to copy and share what you see. Always give credit to the original source, include a visible, working link to our website: www.polionetwork.org and email us a copy of what you "share". THANKS.



Email: info@polionetwork.org
215-858-4643

We are a Registered 501C3 organization