

## Polio Particles 22

Mary Westbrook

### **Stamps commemorate polio vaccine rivals**

The US Postal Service has released two stamps to honour the developers of the polio vaccines as part of its *Distinguished Americans* series. A 63c stamp shows Dr Jonas Salk who, in 1955, developed the inactivated vaccine (IPV) which is given by injection. The other stamp (87c) has a portrait of Dr Albert Sabin who developed the oral, 'live' vaccine in 1962. There was great enmity between the two men and one wonders how they would react to being equally honoured by this stamp issue. Sabin died in 1993 and Salk in 1995. According to David Oshinsky, author of the book, *Polio: an American Story*, all their obituaries linked the two men and judged Sabin to be the victor. *Both men died believing that to be true. Yet, amazingly the entire landscape was about to change. In 1996, the Center for Disease Control's Advisory Committee on Immunization Practices offered a sweeping new recommendation. With the poliovirus apparently eliminated in the Western Hemisphere... the committee members felt they could no longer ignore the dozen or so cases of vaccine-related polio that still occurred annually in the United States. The logic was simple: the Sabin vaccine, so successful in disrupting the life cycle of poliovirus, had become the final obstacle to fully eradicating the disease....The vaccine war had come full circle.*

### **Arizona woman contracts paralytic polio**

The first case of paralytic polio identified in the US since 1999 occurred in 2005. (The five cases identified in Minnesota last year were non-paralytic polio). This was also the first known case of VAPP (vaccine associated paralytic polio) occurring in an unvaccinated US adult travelling abroad. The 22 year old Arizona woman, who was participating in a university sponsored study abroad program, contracted polio in Costa Rica. The US *Morbidity & Mortality Weekly Report* (3/2/06) said that she had never been vaccinated against polio for religious reasons. The Costa Rican family with whom she lived for part of her trip were frequently visited by their infant grandson who received his first dose of oral polio vaccine soon after the student arrived. This is her only known exposure to polio. She was transported back to the USA suffering from fever, headache, neck and back pain, respiratory failure and severe weakness of her legs. She required intubation. It was originally thought that she had a condition such as Guillain-Barre Syndrome but the only enteroviruses identified in specimens were Sabin-strain poliovirus types 2 and 3. During two months of hospitalisation the woman recovered respiratory function but despite physiotherapy still had leg weakness.

In an earlier report (*Polio could threaten United States again*) in the US *Daily Record* (24/1/06) Dr Richard Bruno posed the question: *What happens if a polio infected child lands in a densely populated city like New York, where 23,000 toddlers are unvaccinated? Every child must be vaccinated because America's next polio epidemic is just a plane ride away.* The majority of people who contract polio show few symptoms and do not develop paralytic polio. Bruno refers to them as *Polio Peters* because they remind him of *Typhoid Mary*. Bruno commented that vaccination costs *pennies in prevention, but billions in cure* to try and undo the damage caused by polio.

### **Helping polio survivors in developing countries**

The Manning River Men's Shed had a successful first year of operation according to *ABC Mid North Coast* (3/1/06). One of their projects has been to build wheelchairs from donated bicycle parts for polio and landmine survivors in Afghanistan, Angola, Fiji, Cambodia and Laos. *Old bikes donated by the local rubbish tips are cut down, spray painted and sandblasted before being assembled with timber flooring supplied by Rotary International and transported to Queensland for shipping overseas. The Manning Shed contributed 12 chairs to the first overseas shipment of 3,800 chairs by Surfers Paradise Rotary and Shed members have started work on their next 24 chairs.*

Accountant, Arun Patel, son of Indian born parents, contracted polio as a child in Uganda and now, aged 52, has post-polio syndrome. He lives in England and on a visit to the 2002 Paralympics observed some Indian children who had had polio. He and his two brothers decided to visit the children's school in Jodhpur, in a rural desert area. One brother, a doctor, described the experience in an interview with the *Rochester Times-Union* newspaper (19/11/05): *'It was shocking, absolutely. I had lived all my years of life having a brother with polio. But to see 400 children with polio, it is really tear-jerking'*. The brothers founded a registered UK charity *Polio Children* ([www.poliochildren.org](http://www.poliochildren.org)). To date it has raised \$(US)170,000 to build a dormitory for 140 girls who previously lived some miles away from the school at a drug addiction facility. Patel says that, *Girls are at a huge disadvantage in the culturally conservative society. A disabled boy has a better chance than an able-bodied girl. A disabled girl would have no chance at all.* Other money has been raised to purchase a power generator, help establish a dairy farm and provide for college and university tuition for older children. There are now 550 children at the school which has a waiting list. Volunteers to work at the project are being recruited.

George Johnson, of Dunblane, Scotland has raised nearly £200,000 as a volunteer for Water Aid was invited by the charity, which builds wells in Africa, to view some of the results of his efforts in Burkino Faso. The *Daily Record* (23/2/06) wrote that the 61 year old grandfather *wept when he saw the filthy water people there had to drink. One of those to benefit from George's efforts is 20-year-old polio sufferer Absepta Tonde, who used to get up at dawn every day to crawl across the dusty ground to the filthy village well. The water source was barely 50 metres from her tiny mud hut but the tortuous trip took half an hour. The disabled orphan moved by reaching out and placing her water container on the ground, then dragging her useless legs forward. The new rope pump and 10 metre concrete well ...will allow Absepta and her neighbours easy access to clean water for the first time. She said: 'Life is hard here but this is a spring of hope for our future'*. It is a tradition in the area to name new wells after the oldest man in the village so this water pump has been called George.

### **Polio drugs in ice-cream factory**

The chief medical officer and other officials at Dumka Sadar Hospital in India used money allotted to set up a cold storage facility in the hospital for polio vaccine and other drugs, to wine and dine. When the corruption was unearthed, a raid led by the executive magistrate

found hundreds of bottles of premium liquor at the hospital and chief medical officer's home and stocks of medicinal drugs that he was selling on the black-market. The polio vaccines were being kept at an ice-cream factory (*Hindustani Times*, 15/1/06).

### **Polio ambulance driver's Australia Day award**

Lady Marigold Southey (Lieutenant Governor of Victoria since 2001) has been made a Member of the Order of Australia for services to the community. These have included 30 years as a driver of a Red Cross ambulance that transports severely incapacitated polio survivors. There is now only one patient, June Middleton in the Austin Hospital, who still depends on her services (AAP 26/1/06)

### **Crackdown on disabled-parking permits in Illinois**

Drivers in Illinois who are found using bogus parking permits are now being fined \$500 with a threat of loss of their driving license according to a report in the February issue of *New Mobility* magazine. Drivers have been found with *color copies and fakes purchased on the Internet or from the back room of a Chicago bar; they choose license suspension over divulging the name of the bar*. Illinois parking placards will now have a high-tech hologram that it is hoped will be hard to duplicate. One of the reasons the relatively new NSW disabled parking permits (plastic card with photograph of permit holder) were introduced was because people were making coloured photocopies of the old cardboard permits. How secure are the new ones?

### **Polio survivors pressured to sign do-not-resuscitate orders**

After recovering from pneumonia, 50 year old polio survivor Lilibeth Navarro, was urged by her doctor to sign a do-not-resuscitate order so it would be on file when she was next admitted to hospital. In an interview in the *Sacramento Bee* (9/2/06) Lilibeth said she found the doctor's attitude *markedly different from the manner medical professionals seemed to display toward family members such as her 93-year old grandmother. Doctors presumed that her fully mobile grandmother would want to use all medical technology at their disposal to extend her life. 'What's the difference?' said Navarro, who uses a motorized wheelchair. 'I wasn't walking, and she was walking. It's scary. It's very scary'*. Another polio survivor, history professor Paul Longmore, said, *'We get reports from around the country that individuals with disabilities go into hospitals for some kind of treatment, and hospital staff pressure them to sign do-not-resuscitate orders. This really is serious discrimination'*. Such experiences are the reason many disability rights activists oppose legalising assisted suicide. Disability activists argue that the insidious social bias against disabled people *combined with an emphasis on cost-cutting in the health care industry may pressure people with disabilities to request lethal prescriptions--and their doctors to provide them--when what they really need is more support for living independently in the community*. Longmore argues that, *'People with disabilities are much more familiar than other Americans with how the health care system works, and for that reason, I think we can speak with authority on this subject. We know that patients are denied the kind of care they have a right to, particularly with regard to things like pain management...We understand the horrible experiences people have that can lead them to support assisted suicide'*

### **Polio global case countdown**

WHO reports that between 15<sup>th</sup> March, 2005 and 14<sup>th</sup> March, 2006 there were 1,860 cases of paralytic polio worldwide. Polio is now considered to be endemic in only four countries; Nigeria (735 cases), India (63), Pakistan (24) and Afghanistan (11). However many countries considered free of polio reported high numbers of cases due to importation of the virus; Indonesia (303), Somalia (194), Ethiopia (18), Niger (12), Angola (10), Sudan (5), Nepal (4), Mali (3), Chad (2), Eritrea(1) and Bangladesh (1) ([www.polioeradication.org](http://www.polioeradication.org)). The total number of cases is higher than the 500 in 2001 As reported in recent newsletters most of the imported cases had their origins in the setback to vaccination which occurred in Nigeria in 2003 when the northern states halted vaccination for a year due to rumours that polio vaccine contained AIDS virus or would sterilise those who took it.

Bangladesh has reported its first polio case since 2000; a nine-year-old girl developed polio in January this year. She had contact with a family who had recently visited the state of Uttar Pradesh in India. Bangladesh conducted extensive vaccination programs from 1995-2004 and is now resuming them. It plans to vaccinate around 18 million children on three nationwide vaccination days. All children in the girl's village have been vaccinated.

An article in the *International Herald Tribune* (20/3/06) described the final drive to end polio as *a plague of doubt and exhaustion*. One problem, polio experts warn, is that *many poor countries that eliminated polio have now let their vaccination efforts slide, making the immunity covering much of the world extremely fragile. They compare it to a vast, tinder-dry forest: If even one tree is still burning, a single cinder can drift downwind and start a fire virtually anywhere*. The quality of vaccination campaigns is particularly poor in Nigeria where many children are missed. Living conditions in Uttar Pradesh (population 180 million) make the prospect of eliminating polio *intimidating*. *Living conditions are so dense, public health services so awful, summer heat so sweltering, the open sewers and monsoon floods so commonplace that a more perfect breeding ground can hardly be conjured*. There have been over 24 vaccination campaigns there in recent years. *In 2004 teams went door to door eight times and eight more times in 2005*. While polio numbers are the lowest ever, Uttar Pradesh is the site of most Indian cases. *With great anticipation India and other countries began...using a 'monovalent' vaccine that focuses only on the most common strain of polio, but gives immunity in fewer doses. 'The great hope was that monovalent vaccine would be the magic bullet and melt all cases away, but that hasn't happened' said Cochi [Doctor at the Centers for Disease Control, USA]. Dr Donald Henderson, who led the successful war that eliminated smallpox, believes the polio campaign is all but doomed*. He suspects the WHO figures on the number of cases are incomplete but even if they are correct *problems that are now nearly being ignored in the all-out effort to corral the last few cases will suddenly loom large. For example, as a precaution, vaccination must be continued for many years after the last case is found, polio experts agree. But in about one in three million doses, the live oral vaccine being used in poor countries can mutate back into a wild-type virus that can infect and paralyze victims... And each paralysed child means another 200 'silent carriers' spreading the disease*.

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