

Polio eradication cheap at the price

An article, '*Costs and benefits of polio eradication: a long-run global perspective*' by M. Khan and J. Ehreth was published in the journal, *Vaccine*, in January 2003. The authors used pre-vaccination polio incidence rates to predict the number of cases of polio that would have occurred in the world for the years 1970-2050 if the polio vaccines had not been developed and immunisation had not happened. They calculate that immunisation will have prevented 855,000 deaths, 4 million cases of paralytic polio and 40 million years that polio survivors would have lived with disability over the years 1970-2050. The medical cost savings from this would be more than \$US128 billion. The global polio eradication program will cost about \$US67 billion if vaccination is discontinued after 2010. Thus the polio eradication program will pay for itself in the longer term.

Polio and Parkinson's disease

The Network has received enquiries asking whether polio survivors are at greater risk of developing Parkinson's disease. The polio virus does attack the neurons in the brain that make dopamine. It is the failure of these same neurons that is thought to be responsible for Parkinson symptoms (tremors and rigidity associated with severe fatigue and decreased ability to concentrate). So since the 1940s researchers such as David Bodian have wondered why they did not find an increased rate of Parkinson's disease among polio survivors. They hypothesised that if the damage caused to these neurons by the polio virus was very severe, then injury to other vital brain centres would also be severe, causing patients to die from bulbar polio. If damage to the dopamine neurons was less severe it was considered that it would be below the threshold necessary for the tremor and rigidity of Parkinson's disease to appear. Recently the *Journal of the American Medical Association (JAMA; 3/4/03)* reported a study by Nielson and others of a cohort of Danish polio survivors who contracted polio between 1919 and 1954. They were found to be about twice as likely to develop Parkinson's disease as people who had not had polio. The researchers speculate that the normal loss of neurons that occurs when we age, plus the loss that occurred when we contracted polio, may account for polio survivors being more vulnerable to Parkinson's disease. However this is the only research that has found an association between the two diseases. In his book, *The Polio Paradox*, Bruno wrote that he has not found a higher rate of Parkinson's disease among the polio survivors he has been treating for two decades. He says that some survivors worry about muscle tremors but these are often caused by doing too much and tiring polio-damaged, overworked neurons, particularly when survivors are emotionally or physically exhausted, and sometimes when they forget to eat.

Polio and cancer

Nielson and his colleagues used the same cohort of Danish polio survivors mentioned above to investigate whether there is a link between polio and cancer, particularly between polio and cancer of the central nervous system. Their findings were published in the *International Journal of Cancer*, May 2001. The only association they found was that women who had paralytic polio may have an increased rate of breast cancer. My hypothesis would be that the difficulty of having a mammogram might be a factor in such an association. The radiology practice I attend can theoretically do a mammogram while

you are sitting down. The only problem is that when they do this they find the results are unsatisfactory. So I need to get out of my wheelchair, use crutches that I have to bring with me and hang onto the top of the X-ray machine like a panic-struck orang-outang as I attempt to pivot around into the various positions required. A little more disability and I'd have to make do with poor X-rays and maybe I'd begin to wonder if it was worth the effort. In the October 2003 issue of *Link* magazine, which examines disability issues in Australia, there is report on women with disabilities in the ACT not regularly accessing breast and cervical cancer screening. The ACT's Screening Program has set up a Disability Task Group to deal with this problem. To date it has developed three new resources: A brochure: *Women with disabilities: Your rights when accessing health services*, a *Pap Test Fact Sheet* for women with disability and a *Tip Sheet* for health practitioners which provides advice on how they can provide care that is inclusive of people with disabilities and in doing so help to avoid potential discrimination against people with disabilities.

Polio survivors' memories encourage vaccination

An article by Elaine Ellis-Pegler in the November 2003 issue of *Polio News*, the Newsletter of the Polio Support Society NZ, describes how many survivors of vaccine preventable diseases have contributed to the project *Piercing Memories; remembering the past to protect the future*. The project was initiated by the Immunisation Advisory Centre at the University of Auckland. When the Centre was established in 1994 it became apparent from the numerous phone calls received that *many parents and a surprising number of doctors and nurses had limited experience of vaccine preventable diseases such as polio, diphtheria and even measles and even less understanding of their cruel complications and long term effects. As our old people died, their memories of the devastating epidemics of the early 20th century were fast disappearing from national memory*. To date Ellis-Pegler has videoed the stories of over 180 people who contracted such diseases, and the memories of their family members. These are used in education programs for health practitioners and community groups. The Prime Minister has supported the program by recording her childhood memories of measles and chickenpox. Ellis-Pegler says that her overwhelming impression of people's stories *is of a sense of loss that pervades these experiences and the ongoing effects on families, such grief and so many tears. ..So many accounts of polio describe devastating loss: the death of a beloved five year old sister, loss of childhood, lost mobility, lost expectation of a normal life. The young father with polio who always regrets he could never kick a ball around with his sons. The 17 year old student nurse with TB who lost her youth and watched six of her nursing friends die during two years on a freezing TB sanatorium verandah.... But also wider social losses; huge disruptions to social networks and travel arrangements, businesses closed and families separated during epidemics. Financial loss -- the costs of visiting children in hospital for months or years...Educationally the losses were and continue to be significant...A Maori woman, a high academic achiever and badly affected by polio, had such a poor self image of her crippled body and was so afraid of how she would cope with the wide world ...that she refused to pass any of her school certificate exams, a decision that led to a lifetime of social and economic deprivation. The loneliness remembered vividly 60 years later, of children isolated in hospitals for weeks, months, sometimes years away from their families. Widespread prejudices have been recalled...Fear, too, still pervades people's lives. Ongoing fear of Post Polio Syndrome...Another sentiment, widely expressed, is a sense of disbelief that people*

choose not to immunise. One polio survivor said: *The difference polio has made for me is everything I do is such an effort and a lot of pain with it.* Another said: *You would not want your family to go through what we've gone through, so I think people can learn by what we have experienced.* One survivor who was videoed was an unimmunised woman who developed polio in 1999 at the time her baby received the oral vaccine. The master tapes from the project have been placed in New Zealand's Oral History Archive.

Polio kick-started William books

In your childhood you probably read some of the 38 William books or saw a William film. The series was written by Richmal Crompton, classics mistress at a school in Kent who wrote a story about William for the Women's magazine *Home* in 1917. In 1924 at the age of 33 she contracted polio which left her with a paralysed leg. Crompton returned to teaching but found it too difficult and gave it up to write full time. She then wrote the first William book which she intended for adults but it was very popular with younger readers so she concentrated on writing for them. At the time of her death in 1969 over 8 million William books had been sold.

Early Australian polio treatments and preventatives

The book, *Paradise of Quacks: An alternative history of medicine in Australia* by Phillipa Martyr (published by Macleay Press, 2002), describes what was probably the first recorded after-care treatment for polio prescribed by an Australian doctor. Dr Philip Muskett, surgeon superintendent to the NSW government in the 1880s, advocated mustard poultices, heat treatment, purges, fardisation (electrical stimulation) and rubbing. Martyr found some non-orthodox preventatives against polio in letters sent to the Public Health Department in the mid 20th century. *Vera Grey of Karrgonning believed it was due to constipation, while Mrs A Beck of Margaret River came up with an explanation of polio guaranteed to please the children at risk of the disease—'a collapse of the nervous system through lack of blood sugar'. Her preventative diet included: 'a good pudding every day made with milk and sugar, and either boiled, steamed or baked. Like custard, rice, tapioca, sago, date and jam roly poly (with sweet sauce), castle pudding, suet dumplings, apple dumpling, syrup dumplings, and always ½ an ounce of boiled lollies daily'.* Camphor bags worn round the neck were used as a preventative by some Tasmanians during the terrible epidemic of 1937-38. These had been used against smallpox in the 19th century.

Orthopaedic surgeons fail to investigate osteoporotic fractures

The Bone and Joint Decade was launched in 2000 to advance understanding of musculoskeletal disorders through research and to improve quality of life for people with these disorders. The organisation is headquartered in Sweden and is supported by medical societies, patient advocacy groups worldwide and WHO. For information visit www.boneandjointdecade.org. It has helped fund Dr Karsten Dreinhofer's 2003 multinational (UK, Italy, Spain, Germany, New Zealand and France) study of 3,500 orthopaedic surgeons. *Since Orthopaedic surgeons are often the first and only physicians to see fracture patients, they are in a unique position to identify untreated cases of osteoporosis, and as such reduce the risk of subsequent fracture* according to Professor Olof Johnell of the International Osteoporosis Foundation, co-funder of the study. Dreinhofer found that 50% of practicing orthopaedic surgeons had received little or no training about osteoporosis. Only in Germany were the majority of patients referred for a

bone density test; in the UK only 16% were. Only half of the orthopaedists in Southern Europe knew about the importance of external risk factors for hip fractures eg cataracts, poor lighting, pathway obstacles, poor balance. Only 25% of orthopaedists in the UK and France felt knowledgeable about managing osteoporosis in their patients. How many are aware of the localised osteoporosis that polio survivors tend to have in their affected limbs, which may or may not be accompanied by generalised osteoporosis? (Report on the study at www.boneandjointdecade.org/news/default.html).

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