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Fear, frustration and the will to overcome: A social history of poliomyelitis in Western Australia

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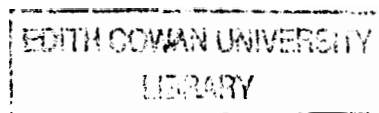
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**FEAR, FRUSTRATION AND THE WILL TO OVERCOME:
a social history of Poliomyelitis in Western Australia**

by

**John H Smith
BA, Dip. Theol, ThM, MA**

**A thesis submitted
in fulfilment of the requirements for the degree of**

**Doctor of Philosophy
(History)**

**Faculty of Arts
Department of Social and Cultural Studies
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USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

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ABSTRACT

FEAR, FRUSTRATION AND THE WILL TO OVERCOME: a social history of Poliomyelitis in Western Australia.

This thesis investigates community responses to Poliomyelitis, and the impact of the disease on those who experienced it, particularly during the epidemics that occurred in Western Australia between 1938 and 1956. The research sources are W.A. Health Department records, held mostly at the Battye Library, records held by Australian Archives and Royal Perth Hospital, newspaper reports, comparative studies from several states in Australia and overseas, oral history interviews, biographies and personal records.

The history of polio has several layers and the presence or the disease in the community evoked varied and ambiguous reactions, summarised here as fear, frustration and the will to overcome. I have examined the discussion the virus generated amongst members of the public, researchers, health professionals and polio survivors, in order to draw conclusions about the relationship between disease and western society.

Polio evoked greater level of fear amongst all members of the community, compared with other infectious diseases which had a far higher mortality rate. The behaviour of the polio virus challenged theories of infection current during the first half of the twentieth century. Health and scientific professionals, and the general public, were frustrated by a lack of accurate knowledge concerning the disease. Uncertainty led to the implementation of a variety of preventative measures, some of which, such as quarantine, were unpopular while others, such as nasal clips, were ineffective. Research aimed at developing a vaccine to conquer the virus was maintained but scientific and medical professionals disagreed amongst themselves, while members of the general public questioned their capabilities and offered their own homespun solutions. At the same time polio survivors were often noted for their determined efforts to recover from the effects of paralysis.

Epidemics of polio in Australia, which were most severe between 1937 and 1956, peaked in 1951. Once the employment of Salk vaccine, discovered in 1952, removed the threat of polio, interest in the disease declined in western societies while survivors continued to live as if their had no disability. Considering the impact it made on the community at the time there has been little ongoing discussion of polio. However the memory of polio is being revived at present, particularly amongst polio survivors, due to the after effects of the virus itself. A condition known as "Post-Polio Syndrome" (PPS) has been identified, and research into this field

continues. Alarm at the current drop in the rate of immunisation in Australia, and the reappearance of 'conquered' diseases such as whooping cough, has also acted as a reminder of the social havoc epidemics of polio and other dangerous infectious diseases once created. Although this thesis refers to PPS, the primary interest is in the responses of the community and individuals during the polio era, and their memory of that period.

DECLARATION

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signature.....


Date.....

012 December 1997

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This thesis would not have been written were it not for Ross Smith, whose insights and care, given to me at an important stage of life, enabled the original idea to grow and develop.

I am grateful to Edith Cowan University for granting me a postgraduate scholarship, and to Professors Geoffrey Bolton and Alan Bittles for their supervision.

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Julia Lacey saved me hours of work by transcribing the Oral history interviews, and Andrew Watson made sure the computer kept up with the task in hand.

Sue Healey and Gillian Hallett kept my shoulders supple with massage, and Eli Lazar continued to work on my back, as the hours in front of the computer took their toll of my spine.

I am grateful to the staff of the Battye library for their assistance, and for that of Elizabeth Hides and Mark Lay of the Public Health Department, and Dr W Beresford of Royal Perth Hospital.

Many others were generous with insights, resources and advice which helped this project reach fruition. Katharine Massam has been an insightful intellectual colleague, careful proof reader, and companion on this journey. Susanne Howlett shared it as a fellow polio survivor with a common interest in wellbeing. Beverley Campbell provided the poem in Chapter 6, Roger Smith made the spread sheets, and Cecilie Bearup gave me the benefit of her books and her wisdom. Pat Baines, Lenore Layman, Mary Westbrook and Gillian Hatt gave most helpful advice. At different stages of the project Jane McGillivray, Pauline Harrowby Jan Clarke, Julia Gross, Anne Killalea, Jane Connors, Abby Robinson, Richard Lugg, Pam Hodge, Sue Graham-Taylor, Christopher Rutty, Anne O'Brien, Anthea Hislop, F.B. Smith, Judith Rafferty, Cherry Gertzel, Neville Hicks, Brian Shoesmith, Dino Gava, Bruce Wroth, Peter Ewing, Anne Atkinson, Maryon Allbrook, and Lindsay Hunter each supported me in more ways than they could have known at the time. And the postgraduate students at Edith Cowan University have been valued and enjoyable companions on this journey.

There are many others have contributed to the project but any errors or omissions are my own.

John H Smith

December 1997

LIST OF ABBREVIATIONS

AA, Australian Archives

ANA, Australian Natives Association

Argus, Wagin Argus

BL, Battye Library

BMA, British Medical Association

CNA, Commissioner for Native Affairs

CPH, Commissioner for Public Health

CSL, Commonwealth Serum Laboratories

DN, Daily News

IDH, Infectious Diseases Hospital

NFIP, National Foundation for Infantile Paralysis

NH&MRC, National Health and Medical Research Council

PCC, Perth City Council

PPH, Perth Public Hospital

PMH, Princess Margaret Hospital for Children

RPH, Royal Perth Hospital

SPAC, State Polio Advisory Committee

ST, Sunday Times

WA, West Australian

WM, Western Mail

YAL, Young Australia League

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CHAPTER 1: History, memory and polio

Many people have a Polio story to tell and mine is part of this thesis. I am a survivor of the first major polio epidemic to occur in Western Australia. Just before Christmas 1948, aged two and a half, I had become feverish and complained of pains in my right knee.¹ My parents took me to the doctor in the country town near our farm but he dismissed their concerns, subjected them to the humiliation of a lecture on spoiling their child, and sent them on their way. An epidemic of polio had raged in Western Australia since January 1948 and, although there had been only two notifications from our district,² by this stage of the year over three hundred cases had been reported and almost twenty five people had died. As summer came on the epidemic revived. After the school year ended on December 2 the number of notifications rose and did not decline until the end of the month.³ My infection occurred in the thick of the new wave, and under the circumstances one could have expected even a country doctor to be alert to the symptoms of poliomyelitis in a child, but it was not so. Reports of misdiagnosis and insensitive treatment by doctors have proved to be surprisingly common amongst polio survivors.⁴

The next day, at a farm further out, our extended family gathered for a Christmas celebration. I continued to be listless and

¹ Letter, Dr C Christie to RMO, PMH, 21 January 1949, and PMH Records for patient A32220, in possession of Author.

² *Report of the Public Health Department 1948*, (1949), Government Printer: Perth, p. 51, BL, 614.09 WES.

³ *Public Health 1948*, (1949). p. 63, BL, 614.09 WES.

⁴ Six of the twelve people interviewed for this thesis reported erroneous diagnosis in the early stages. See Chapter 9 below.

miserable, and sat on my uncle's knee most of the day. Before many days had passed my right leg was half an inch shorter than my left, and due to lost muscle function, I threw it out as I walked. On 8 January 1949, my parents returned to the doctor who diagnosed poliomyelitis - it was visible by then.⁵ I was referred to Princess Margaret Hospital (PMH), for physiotherapy and orthopaedic care administered under the direction of Dr R. McKellar Hall. I remained in Ward Two of PMH for seven months. Even though my right leg was not gravely affected, there followed months and years of treatment involving physiotherapy, the use of various sorts of calipers, and at least two operations, the last of which occurred in 1961. Once I began work, in 1962, I lived a "normal" life, and certainly did not regard myself as disabled, even though I had never played sport, and there were some things I could not easily do. It was many years before I began to understand how deeply my life had been affected by the months of hospitalisation and years of adjustment to polio.

The memory of my polio experience was severely jolted in 1988 when the news of Post Polio Syndrome began to break in Australia.⁶ In the late 1970s and early 1980s individuals who had suffered from polio, particularly during the period 1930-1960, began to report a variety of symptoms such as loss of muscle function, unaccustomed fatigue and pain. A condition now known as "Post-Polio Syndrome" (PPS) or the "Late Effects of Polio" (LEP)

⁵ Letter, Dr C Christie to RMO, PMH, 21 January 1949, PMH Records for patient A32220, copy in possession of the author.

⁶ Egan, C. "Polio comes back to haunt", *Weekend Australian*, 12-13 November 1988, p.10.

was identified. Many who presented with PPS found that doctors knew little or nothing of polio and, at first, did not take their symptoms seriously. But the weight of evidence for PPS mounted and research into this field continues.⁷ Many polio survivors found the coming of PPS revived painful memories of their original experience,⁸ and aroused fears concerning their future. I was one of these. For others the identification of PPS brought welcome relief⁹ because it named something they knew to be part of their life, but which doctors, and friends, did not know about or would not take seriously.

In Australia alarm at the drop in the immunisation rate has acted as a social reminder of the havoc epidemic polio, and other diseases, once created. A campaign to promote the vaccination of children has begun, aimed mostly at diseases such as whooping cough.¹⁰ But, as far as polio is concerned, the emergence of PPS has been of far greater importance. Because of PPS polio is now back on the personal, historical and public health agendas of the

⁷ Halstead, L.S. and Grimby, G. (1995). *Post Polio Syndrome*, Hanley and Belfus, Inc. Philadelphia, is a comprehensive series of essays on the subject of PPS. See also Leboeuf, C. (1991). *The Late Effects of Polio: information for health providers*, Commonwealth Department of Community Services and Health, Australian Polio Network, (1991). *Polio Papers 1991*, Citadel Press, Hawthorn, and the *Proceedings of the Australian Conferences on Post Polio*, Adelaide 1992, Merroo NSW, 1996.

⁸ Halstead, L.S. and Grimby, G. (1995). *Post Polio Syndrome*, pp.199-214, Sass, E.J. (1996). *Polio's Legacy: an oral history*, University Press of America. Oral History Interview J, p.93, and K, p.93.

⁹ Interview C.

¹⁰ WA, 8 April, 1995, p.49; *Weekend Australian*, 3-4 February 1996, Schedule aims to arrest 'scandalous' immunisation levels, p.7.

community.¹¹ New demands in the field of after care have been highlighted and a new response is required from medical and clinical practitioners. Post-Polio Networks have formed in Australia and New Zealand, and in other parts of the world, to gather information and provide practical and non-material forms of support for polio survivors.

The memory jolt brought about by Post Polio Syndrome, has affected many people very deeply. It is as though an earthquake has broken the surface of the historical landscape, throwing up things that had hitherto laid buried or forgotten. As the oral testimonies used for this thesis show, polio survivors have been caused to revisit memories of their personal and professional past, and that of the community in which they lived. The silence is being broken, new light is being cast on these experiences and it is possible to ask fresh questions that will allow us to reframe the received understanding of this period. Histories which deal with life in Australia during this era pay little or no attention to polio.¹² But polio has begun to be discussed again as it has re-emerged due to PPS. A parallel can be found with the experience of many who lived through the Second World War but did not speak

¹¹ Bearup, C. (1991). *The outcomes of the Poliomyelitis Epidemics in South Australia: 1912-1960*, unpublished Honours Thesis, Flinders University, p.18. Bearup surveyed 124 members of the Post-Polio Support Group of South Australia. Many stated "their story had not been told and that the greatly reduced incidence of the disease had erased knowledge of their experience from the public's mind".

¹² Stannage, C.T. (ed.), (1981). *A New History of Western Australia*, Nedlands: University of Western Australia Press, makes no reference to polio while G Bolton makes a small reference to it in connection with Sister Elizabeth Kenny and Dame Jean Macnamara in Crowley, F. (ed.), (1974). *A New History of Australia*, Melbourne: William Heinemann, p.481. A brief article appears in the more recent work by Gilbert, A, and Inglis, K. (eds.), (1987). *Australians: a historical atlas*, Broadway: Fairfax Syme and Weldon Associates, pp.172-3.

of their memories until legitimacy for doing so was given, fifty years later, through Australia's year of remembrance in 1995.¹³

The physical effects of polio have not been especially debilitating for me and I have been able to do most things in my life. But in my middle years I found that the social and psychological effects emerged to reveal enduring scars. In 1991 after twenty years of struggling to maintain close relationships, I was referred to a psychologist familiar with attachment theories, especially those represented by the work of John Bowlby.¹⁴ My difficulties were attributed to the initial long period of separation from my family, endured at a particularly vulnerable time of life. In the 1940s there was little hospital visiting allowed and the attitude to child care was hard and unfeeling. In my case access was difficult - I was one hundred and fifty eight miles away from home where there was a farm to run and five other children to care for. It was like being abandoned but the wounds created by this experience remained "out of sight". Being given the tools to understand this aspect of my past and de-code the experience allowed a revelation to occur. I was given a lens through which I began to re-read the whole of my life up to that point. And I have had to think about the future in new ways. Others have had similar experiences but in our culture it is not something that is readily accepted or discussed. It is evident that there is some reluctance to allow the memories of childhood deprivation to be accepted into our

¹³ Darian-Smith, K, and Hamilton, P, (eds.), (1994). *Memory and History in Twentieth Century Australia*, Melbourne: Oxford University Press, p.139.

¹⁴ Explanation is given in Chapter 9 below.

This thesis investigates memory and history in connection with the impact of polio on individuals and the community in Australia, particularly in Western Australia from 1938-1956. From 1881 until 1956 (the 'polio era') several Western countries, including Australia, were affected by an increasing number of polio epidemics. Although the polio virus has made little impact on the Australian community since the late 1950s the effects of this disease continue to shape the identities of its survivors, and others who for different reasons knew it at close range. Polio has not been a disease to reckon with in Australia since the mid 1950s, few cases were reported in Australia after 1966, and none since 1986.¹⁶ However, the virus continues to be active in Africa, India, South East Asia and China [Figure 1],¹⁷ where steps are being taken to eradicate it.¹⁸

It is difficult to imagine the impact a polio epidemic made on the community though some draw parallels with the AIDS epidemic.¹⁹ Until vaccination commenced perplexed research scientists and

¹⁵ The original reaction of the medical profession to Bowlby and Robertson's work was one of disbelief, and later feminist writers have attacked some of their presuppositions. In Australia the treatment given to the recent "Stolen Generation" report, and the slow emergence of the details surrounding the "Leaving of Liverpool" are signs of the difficulty we have confronting issues of childhood deprivation.

¹⁶ WA, 8 April, 1995, Polio a risk:Lawrence, p.49.

¹⁷ World Health Organisation, Global reported incidence of poliomyelitis, used with permission. In 1996 there were 3,755 polio cases reported, mostly from Africa, India, South East Asia and China. None were reported in Australia, North America or South America.

¹⁸ WA, 20 January 1997, p.24. 120 million Indian children were vaccinated in the second round of an attempt to eradicate polio by the year 2000.

¹⁹ Rogers, N. (1992). *Dirt and Disease: polio before FDR*, Rutgers University Press: New Jersey, p.3.

health and medical professionals were obliged to recognise and respond to the growing threat the polio virus posed to the community. At first children were the main ones to suffer from the paralysing effects of the virus, but during the more recent epidemics a growing proportion of young adults suffered infection and residual paralysis. Those who survived, learned to live with the result. Family members and carers experienced quarantine, and sometimes ostracism, when someone close to them became infected. During an epidemic quarantine officers and council workers had extra duties to perform, school and kindergarten teachers had their classes cancelled, swimming bath operators were unable to conduct their businesses, and journalists had to weigh the social cost of a sensational story against the potential effect it might have on the level of fear and hysteria abroad in the community.

Memory and history

This research has been influenced by work which has reflected on the relationship between memory and history.²⁰ For some memory is 'the life of history' as the tree is to its bark, for others the relationship is more ambiguous, even antithetical.²¹ The lack of formal sources in some fields, such as indigenous history, and the continued expansion of historical methodologies, has provided

²⁰ Darian-Smith, K, and Hamilton, P. (eds.), (1994). *Memory and History*, and Samuel, R. and Thompson, P. (eds.), (1990). *The Myths We Live By*, Routledge, London. Both contain numerous essays by writers who have explored new ways of making the connection between memory and history.

²¹ Darian-Smith, K, and Hamilton, P. (eds.), (1994). *Memory and History*, pp.9-11.

impetus for a re-evaluation of the place of memory, or perhaps we should say experience, and its relationship with history.²² In the last two decades history has been 'nourished' by memory through the development of new questions arising from new methodologies. The continued acceptance and sophistication of oral history, the growth of interest in indigenous oral traditions, the collective remembering of nations, and of groups such as holocaust survivors and war veterans, the gendered nature of memory, and the influence of post-structuralism have all contributed to this development. The results include a deeper appreciation of the links between place and identity.²³ Expanded perspectives on ways the past is remembered have been paralleled by new understandings of ways in which the past is forgotten.²⁴ An 'official' or single, abstracted understanding of a subject is now hardly possible, if it ever was.

The revisiting of memory means that it is necessary to take a more flexible, or fluid, approach to history. Parallel narratives are acknowledged by some writers, and counter stories are accepted alongside, or even within, a narrative.²⁵ Judith Binney,²⁶ Carolyn Steedman,²⁷ and Mark Baker,²⁸ are examples of writers who are

²² Benjamin, W. (1992). *Illuminations*, Fontana: London, p.83. Benjamin regarded the decline in storytelling as a sign that experience had been devalued.

²³ The work of Peter Reid for example.

²⁴ Darian-Smith, K, and Hamilton, P. (eds.), (1994). *Memory and History*, see Paula Hamilton's discussion, pp.12-13.

²⁵ The Australian "lest we forget" approach to the ANZAC tradition is a counter narrative when placed alongside the call for the elimination of the "black arm-band" view of indigenous history which requires institutionalised forgetfulness.

²⁶ Binney, J. (1997). *Redemption Songs: a life of the nineteenth century Maori Leader Te Kooti Arikirangi Te Turiki*, Melbourne University Press: Carlton.

²⁷ Steedman, C. (1982). *The Tidy House: little girls writing*, Virago: London.

²⁸ Baker, M.R. (1997). *A Journey Through Memory: The Fiftieth Gate*, Flamingo.

involved in exploring the connections between history and memory in new ways, and from different perspectives.

With respect to the negotiations that take place in society over memory and history Paula Hamilton has written -

...since all memory is subject to structures of power in any society, we need a great deal more investigation into the processes by which some memories become erased, some emerge in the public arena, and some remain relatively privatised.²⁹

The most readily noticeable memory gaps in Australian history have been in connection with indigenous history, the place of women, and the experience of war veterans and prisoners of war.

It is evident from this research that there has been a gap in the public memory of the polio era in Australia. Despite the popular appeal of Alan Marshall's *I Can Jump Puddles*, published in 1955 and made into a television series in the 1970s, polio has not figured in popular discourse since the late 1950s. While the success of the immunisation campaign, which was trumpeted as a conquest of the disease, can account for this there is also evidence polio survivors were inducted into a culture that encouraged them to deny their disability, and its effect on their life. Consequently the perceptions and stories of many who survived infection, or in some way encountered the ravages of the disease at close range, have been overlooked, marginalised or forgotten. Those survivors who did gain attention were often high profile figures, such as Alan

²⁹ Darian-Smith, K. and Hamilton, P. (eds.), (1994). *Memory and History*, p.20.

Marshall and Marjorie Lawrence, who were seen to triumph heroically over their loss.³⁰ They shared the limelight with international heroes such as President Roosevelt and Jonas Salk about whom much has been written.³¹

There are many voices to be heard in recounting the history of polio in Western Australia, but up to the present time the official history has been provided by the Public Health Department, in the Annual Reports, which are thorough and detailed. Designed to satisfy the accountability provisions of the Public Health Department they contain medical and epidemiological information rather than material of a personal or social kind.

Archival materials from the Public Health Department illuminate these reports, and offer other voices and perspectives not included in the annual reports. Australian Government Archives provide access to national policy decisions which affected the whole of Australia and, as in the case of the 1954 royal tour, details affecting to Western Australia in particular.³² Royal Perth Hospital Archives reveal something of effect polio epidemics had on the life of the chief public hospital in Perth. The ongoing debate about polio amongst health and medical professionals is found in the medical and public health journals. Unpublished material is available that refers to polio as part of hospital, public health or

³⁰ Marshall, A. (1955). *I Can Jump Puddles*, Hawthorn: F W Cheshire, Lawrence, M. (1949). *Interrupted Melody*, New York.

³¹ See Chapter 3 below.

³² The ABC TV Social History Documentary, "*TIME FRAME - Polio Days*", March 1997, dealt with polio and the royal tour.

Newspaper reports during the polio era offer a number of perspectives, often supporting the official line, as represented by the Public Health Department, or through the columns such as "The Diary of a Doctor".³⁴ Newspapers were also the means whereby some of those articulate enough to express themselves via letters to the Editor had their views published. Parliamentary papers record the urgent questions and answers of politicians concerned about their constituencies.

Julie Marshall's short history of Princess Margaret Hospital refers briefly to the first major epidemic in 1948.³⁵ And gradually more individuals, other than the more high profile figures, have felt moved to voice their polio story. A volume by Vivienne Overheu, (1984). *It Helps To Be Stubborn*, Perth, and a volume of stories self published by the Post-Polio Network, (1990). *The Polio Experience: personal stories*, Perth, provide this form of personal perspective. A rapidly growing amount of similar material is available for other parts of Australia, New Zealand and the United States of

³³ An unpublished manuscript compiled by Lissiman, M.C. and Mackay, J.H. (1959). *Poliomylitis: a general study of the disease*, is kept in the Curtin University Library. Written for physiotherapy students, the manuscript offers a brief factual outline of the history of polio in Western Australia. Other unpublished sources are Martyr, P. (1994). *The Professional Development of Rehabilitation in Australia, 1870-1981*, University of Western Australia: PhD Thesis, History, Martyr, P. (1996). *A History of the Victoria Hospital (Infectious Diseases) to the Royal Perth (Rehabilitation) Hospital, 1893-1993*, Perth, Graham Taylor, S. (1996). *Public Health in Western Australia in the Post War Years: Draft Report*, Unpublished Manuscript, Perth: Public Health Department.

³⁴ The Diary of a Doctor, "Whooping Cough 'More Serious' Than Paralysis", *Western Mail*, 9 September 1937, p.5.

³⁵ Marshall, J. (1996). *Starting With Threepence: the story of Princess Margaret Hospital for Children*, Fremantle: Fremantle Arts Centre Press, Ch.4.

In this thesis the voice of those who have been directly affected by polio and lived this history has been gained through testimonies given in twelve interviews which have been transcribed. Two were conducted with families in which a member had polio, and ten with polio survivors themselves. All interviewees live in Western Australia, though one had polio in New South Wales and one in Tasmania. Six are male and six are female. One had polio in 1937/38, two in the late 1940s, and the remainder between 1951 and 1956, the peak of the polio era in Australia.

Post Polio Networks have held conferences in Australia and New Zealand since 1991. Proceedings from these events provide another source of medical and scientific data in relation to PPS, and a wealth of other material covering the personal concerns of polio survivors.

As a participant observer in this history my own memories are another source for this narrative. There are advantages and disadvantages in being so closely involved in an investigation of this nature and I have sought to find an appropriate balance in the discussion that follows.

The history of Poliomyelitis must, of necessity, be examined within

³⁶ Recent examples are, Butterworth, K.P. (ed.), (1994). *Mind Over Muscle: surviving polio in New Zealand*, Dunmore: Palmerston North; Sass, E.J. with Gottfried, G. and Sorem, A. (1996). *Polio's Legacy: an oral history*, Lanham: University Press of America.

the framework of scientific and medical developments that occurred following its emergence as an epidemic disease during the 1880s.³⁷ The subsequent attempts to understand the disease, the search for a vaccine, the immunisation campaigns, and the broader currents of social and political influence that provide the context for these developments, have been integral to the discussion of polio and western society in this century.

Until recently the dominance of medical and scientific interests has resulted in a history in which social and personal stories, outside those associated with figures such as Jonas Salk and FDR, have played a lesser part. The increased attention paid by historians to medical and public health topics has contributed to a growing body of social rather than medical histories of disease, and the emergence of PPS has ensured polio, and polio survivors, a place on this agenda. While medical and scientific histories cannot be ignored, this thesis is a social history with at least two aims in view. To examine community reaction to polio and in the process allow a greater variety of voices to be heard on the subject, and to contribute to the reframing of our understanding of the relationship between polio and society.

Little has been published of the history of the polio epidemics in Western Australia and so far no social history of polio in Western Australia has been attempted. A brief outline, based mostly on the annual reports of the Public Health Department, has been given in chapter seven of the book by Dudley Snow, (1981). *The Progress of*

³⁷ For a lucid summary see Rogers, N. (1992). *Dirt and Disease*, pp.165-190.

Public Health in Western Australia 1829-1977, Perth. The title of Snow's book suggests that it covers all of Public Health in Western Australia, but it does so only in outline, concentrating for the most part on the events he himself was involved in while serving the Public Health Department 1950-1973. Educated in England, Snow joined the Perth office of the Western Australian Public Health Department in 1950 after two years in the North West with the Royal Flying Doctor Service. Formerly a Major in the British Army, Snow brought the skills, discipline and language of that profession to his work. His language in connection with polio was strongly militaristic, something common in other places and perpetuated by the newspapers of the day which often used headlines such as "Polio Fight Goes On".³⁸ Snow titled Chapter 7 of his book, "The Conquest of Poliomyelitis" and wrote -

Few diseases are capable of evoking as much human emotion as polio... Its conquest throughout the world since 1956 has therefore been one of the most gratifying accomplishments... The history of the disease in Western Australia is a fairly accurate reflection of its epidemiology elsewhere, but its eradication in this part of the world presented special problems.³⁹

He does not make personal references in his account of the epidemic and records the conquest of polio as a triumph. With the words "in due course the vaccine was pronounced extremely effective in preventing polio,"⁴⁰ Snow passes over any reference to

³⁸ *Daily News*, 11 February 1956, p.6. Militaristic language may have arisen in connection with polio because the period in which the virus was most active in its epidemic form included World Wars I and II.

³⁹ Snow, D.J.R. (1981). *The Progress of Public Health in Western Australia 1829-1977*, p.66.

⁴⁰ Snow, D.J.R. (1981). *Progress*, p.68.

the difficult history that preceded that point, especially in connection with the search for a vaccine. While avoiding the medical difficulties Snow does not hesitate to point out the logistical problems that had to be overcome in Western Australia where the programme “had all the components of a military campaign - an objective, a plan, logistics and reconnaissance, and even propaganda”.⁴¹ An easy frame of reference for a former Major, but one that completely neglected the personal, human element of the story.

Snow's efficiency resulted in the Public Health Department conquering not just the virus, but fears about the safety of the vaccine. Throughout Australia Salk vaccine was provided to all members of the public who volunteered to receive it. In Western Australia an immunisation acceptance rate of 97% was recorded and in the decade 1956-66 over two million doses of Salk were administered throughout the state. The triumph, which is deeply interconnected with his own,⁴² is trumpeted by Snow -

No other vaccination programme has ever been attended by such remarkable results. No other public health measure in the history of Western Australian public health could have been more successful.⁴³

Although the introduction of Sabin oral vaccine, in 1966, made the task of supplying vast areas much easier, Snow, whose own

⁴¹ Snow, D.J.R. (1981). *Progress*, p.70.

⁴² Snow was promoted to the position of Director of Epidemiology in the Public Health Department. Informally some referred to him as “Mr Polio”, conversation, Dr Richard Lugg, October 1994.

⁴³ Snow, D.J.R. (1981). *Progress*, p.76.

contribution to the campaign against polio was significant, modestly asserts that to “Salk vaccine alone must go the credit for the conquest of poliomyelitis in this state”.

In this thesis I place the voice of official history, as represented by the Annual Reports of the Public Health Department, and Snow’s *The Progress of Public Health in Western Australia 1829-1977*, in a broader perspective gained through access to the additional sources outlined above, including the memories of polio survivors. I aim to link an aspect of the history of disease with social history and place the fruits of Dudley Snow’s excellent epidemiology in a broader social and personal context made possible through this research. At the same time I have placed the West Australian experience of polio in a national and international perspective.

This thesis is a narrative social history that began with the whole of Australia in view. The abundance of material available led me to narrow the main focus to Western Australia. The title, *Fear, Frustration and The Will to Overcome*, emerged from the research. Over several decades, polio was described as a disease that was universally feared. Lack of information about the disease, and misunderstandings over its means of transmission fed this fear. The implementation of protection policies that emerged from this lack of understanding were as frustrating to those subjected to them as to they were to those who had to administer them. The will to overcome the ravages of epidemic polio is as noticeable amongst medical and health experts, as the remarkable

determination to overcome their disabilities is amongst polio survivors. The implementation of the immunisation campaign, and the high level of public response to it, is another indication that the defeat of polio was something all members of the community were fiercely resolved to accomplish.

Explanation of the chapters of the thesis

Chapter one introduces the thesis of history memory and polio and discusses memory and history. Chapter two details the virus at the heart of the story and provides an overview of the social meanings attached to polio in history. Chapter three provides an international context for the polio story in Australia through a review of literature associated with the history of polio in the United States of America, Canada, New Zealand and Britain. Chapter four discusses the early history of polio in Australia and Western Australia, examines the outbreak which occurred in Western Australia in 1938 and provides a context for the three major epidemics, 1948, 1954 and 1956. Chapter five discusses the first polio epidemic which occurred in Western Australia in 1948 and which sorely tested the resources of the Public Health Department. Chapter six discusses the second West Australian polio epidemic which reached a peak of hysteria on the eve of the 1954 royal visit to the state. Chapter seven discusses the last, and in some ways the most severe of the Western Australian polio epidemics, which occurred while preparations were being made for the mass immunisation programme that commenced in mid 1956.

Chapter eight discusses the immunisation programme. Chapter nine discusses the experiences of polio survivors and their families, and the impact of PPS. Chapter ten draws together the argument, discusses the understanding of the relationship between polio and society that emerged from this research, makes some observations concerning memory and history, indicates where further research could be undertaken, and concludes the thesis.

Figure 1: Global incidence of poliomyelitis, World Health Organisation, used with permission.

Global reported incidence of indigenous polio

Data as of 25th April 1997



CHAPTER 2: Polio and its themes

Few diseases are capable of evoking as much human emotion as polio.

Dudley Snow, Government Epidemiologist, Public Health Department, Perth.¹

The virus at the heart of the story

Poliomyelitis, the name that was eventually given to the virus at the heart of this investigation, was created from a combination of Greek and Latin words (πολιος = grey, μυελος = marrow, itis = Latin for inflammation) that reflected its behaviour in attacking the grey matter of the spinal cord.² Poliomyelitis was originally regarded as exclusively a children's disease, was not considered infectious, and did not come to prominence in its paralytic form until the middle of the nineteenth century. The Englishman Michael Underwood first coined the name *Debility of the Lower Extremities* in 1789. From the middle of the nineteenth century until about 1930 polio was most commonly referred to either as *Acute Anterior Poliomyelitis* or *Infantile Paralysis*.³ Until the first decade of the twentieth century medical practitioners and scientists in Australia, and throughout the world, observed that children were sometimes paralysed but did not know a virus was the cause.

¹ Snow, D.R.J. (1981). *Progress*, p.66.

² More detail is available in Paul, J. R. (1971). *The History of Poliomyelitis*, New Haven and London: Yale University Press, and Wyatt, H.V. (1993). in Kiple, K. F. (ed.), *Cambridge World History of Human Disease*, Cambridge University Press, pp.942-950.

³ Paul, J.R. (1971). *History*, p.5; Wyatt, H.V. (1993) in Kiple, K. F. (ed.), *Cambridge*, p.942.

The first recorded epidemic of polio, which occurred in Sweden in 1881,⁴ signified a change both in the behaviour and perception of polio. From early this century it came to be regarded as dangerous and contagious and, as epidemics of paralytic polio began to occur more frequently, was made a notifiable disease. Particularly during the 1920s and 1930s, the virus was observed to affect people of all ages, not just children. Worse still the most severe paralysis was evident amongst those in their early twenties. Partly because of this, and partly for convenience, from the late 1930s the term Infantile Paralysis was superseded by Poliomyelitis, or Polio.

A standard definition for polio used by medical professionals and clinicians during the 1940s and 50s, was:

Poliomyelitis is a common, acute viral disease characterised clinically by a brief febrile (fever) illness with sore throat, headache, vomiting, and often with stiffness of the neck and back. In many cases lower neuron paralysis develops in the early days of illness.⁵

Anyone with first-hand experience of polio would agree with John Paul that this clinical description "falls far short of the usual picture which this disease conjures up in the minds of most people".⁶

The base for the activity of the polio virus in human beings is the

⁴ Paul, (1971). *History*, p.72; Burnet, Sir M. and White, D.O. (1940 and 1972). *Natural History of Infectious Disease*, Cambridge University Press, p.91. Burnet and White nominate 1887, and although the year is subject of discussion in Scandinavia, the first epidemics occurred in the 1880s.

⁵ Paul, (1971). *History*, p.1.

⁶ Paul, (1971). *History*, p.1.

intestine and once lodged there it behaves in the following manner. An incubation period of two to five days, during which the virus multiplies, is followed by an attempt to breach the body's defences. If the immune response succeeds in repelling the virus it departs after a few weeks leaving its host with a level of immunity, having experienced a brief febrile illness, or perhaps having manifested no symptoms at all. The Swedish epidemiologist Wickman named this subclinical form the *minor illness*, or *abortive poliomyelitis*,⁷ and prior to the 1880s most children in western societies would have been affected by it. The *major illness*, or "true polio",⁸ is caused if the virus is able to breach the immune system, and travel via the blood stream to the central nervous system where it may attack the grey matter of the spinal cord, the motor neurons, or the brain stem.⁹ The resulting inflammation may damage or totally destroy motor cells which, unlike cells in to other parts of the body, cannot regenerate. The result is permanent paralysis, or possibly death.

There are three ways in which a person may be affected by 'true polio' depending upon what part of the central nervous system the virus has attacked, and the severity of the damage it has caused.¹⁰ It is also possible for a person to be affected by a combination of these forms. In the first case a person may suffer only damage to

⁷ Paul, (1971). *History*, pp.2-3.

⁸ Paul, (1971). *History*, p.3.

⁹ Wyatt, H.V. 1993) in Kiple, K. F. (ed.), *Cambridge*, p.942.

¹⁰ Killalea, A. (1995). *The Great Scourge: the Tasmanian Infantile Paralysis Epidemic 1937-1938*, Tasmanian Historical Research Association, pp. 4-5, provides a helpful summary as does Lebouf, C. (1991). *The Late Effects of Polio: information for health providers*, Commonwealth Department of Community Services and Health, pp.12-15.

some motor cells, the result of which is a temporary paralysis and loss of strength. Damaged cells may recover their function or be compensated for by adjacent healthy cells. In this case a person, who may at first experience quite debilitating paralysis, may recover the use of affected muscles after some months of therapy. In the secondly scenario, where the motor cells are completely destroyed, severe paralysis follows with permanent crippling, or possibly even death. The third, and worst form of paralytic polio infection, known as “bulbar”, affects the brain stem and may cause paralysis in the soft palate and the pharynx. A large proportion of bulbar patients do not survive principally because of difficulty in clearing the throat secretions. Where the respiratory system is also affected, death is virtually inevitable. Paralysis of the respiratory muscles is a separate factor, not necessarily connected to bulbar cases. All three forms may include respiratory paralysis and survival depends on the degree of damage caused. Severe respiratory paralysis requires the patient be placed in a tank respirator or “iron lung” as it was commonly known. While a proportion of respiratory patients were too severely paralysed to survive, and others required permanent support and had to live in the iron lung for at least part of the day, most were able to regain respiratory independence and resume normal life.

Polio in history

Poliomyelitis is thought to have existed widely in the ancient world, primarily in its endemic form,¹¹ as it still does in numerous

¹¹ Paul, (1971). *History*, pp.10-16.

countries in the world today.¹² In ancient, crowded communities most children would have suffered a silent infection of the polio virus by the time they were three or perhaps five years old¹³ and, if their body resisted the paralytic effect, would have been rendered at least partially immune. On this basis a minority of children are thought to have contracted paralytic polio, which was known in ancient times. Biblical and Homeric literature refers to lameness and withered limbs in children, leaving open the possibility that the cause was polio.¹⁴ An Egyptian stele, dating from the eighteenth dynasty (1580-1350 BCE) and now in the Carlsberg Glyptothek, Copenhagen,¹⁵ portrays a carved figure of a priest with a deformed leg which is "so characteristic of the after-effects of poliomyelitis that the diagnosis is practically assured".¹⁶

While the clinical recognition of polio took place during the nineteenth century, at that time it was not known what sort of microbial agent was responsible for it, or if it was contagious. The clarity of the 1950s definition was made possible by fifty years of painstaking research commenced by Ivar Wickman and continued by others following the first epidemics. Karl Landsteiner of Vienna and his assistant Erwin Popper¹⁷ changed the direction of polio research with their announcement of the discovery of the virus in 1908. So well did Landsteiner and Popper prove their case that by 1912 their viral concept of polio was readily accepted and research

¹² See [Figure 1].

¹³ Burnet and White, (1972). *Natural History*, p.95.

¹⁴ Paul, (1971). *History*, p.10.

¹⁵ Wyatt, H.V. 1993) in Kiple, K. F. (ed.), *Cambridge*, p.947.

¹⁶ Paul, (1971). *History*, p.12. A photo of the Egyptian stele appears on p.13.

¹⁷ Paul, (1971). *History*, pp.98-100.

had begun to build on the understanding of an organism that was contagious and infectious, with the potential to cause epidemics.

In 1931 the Australians Burnet and Macnamara, who both earned substantial reputations in the field, positively established that the virus had more than one strain.¹⁸ Eventually three strains were proven and named, Type I, Brunhilde, after a chimpanzee, Type II, Leon, after a person and Type III, Lansing, after a town in the state of Michigan in the United States of America.¹⁹

The ironic feature of polio is that the rise of its new and more dangerous form of epidemic activity took place in countries that simultaneously enjoyed some advancement in their standard of health and welfare. At the same time there was a parallel decline in the infection and the mortality rates associated with a variety of other diseases such as whooping cough and diphtheria.

The change in the behaviour of polio has been explained in the following way.²⁰ While the virus was endemic in society most children experienced it in the subclinical form and became immune, much as they would if they had suffered from mumps or measles. As some societies improved their standards of community health and hygiene and infant mortality declined, a greater number of children lived beyond the age of five years without achieving the

¹⁸ Fenner, F. (ed.), (1990). *History of Microbiology in Australia*, Curtin: Brolga Press, p.378, and Paul, (1971). *History*, p.1. Burnett was the only medical virologist working in Australia at that time .

¹⁹ Parry, W. (1969). *Communicable Diseases*, Hodder and Stoughton, London, p.135, Wyatt, H.V. 1993) in Kiple, K. F. (ed.), *Cambridge*, p.942.

²⁰ Burnet and White, (1972). *Natural History*, pp.90-95.

immunity from the silent infection of polio. As this cohort of children aged a greater proportion of older children existed who were vulnerable to the virus. As young adults this group were found to be particularly susceptible to paralysis.

For a generation after the first polio epidemic other outbreaks, which notably affected young children, were recorded at intervals in countries such as Scandinavia, Canada, the United States of America, Australia and New Zealand.²¹ The first epidemics were reported in the United States in 1893 and 1894, Canada in 1910, New Zealand in 1914 and 1916, Britain in 1911, and Australia in 1897.²² All the above countries recorded an escalation of the intensity and severity of epidemic activity from the 1920s until incidence decreased dramatically following the introduction of immunisation with Salk vaccine in 1956.

Polio in Australia

The first outbreak of polio in Australia large enough to arouse the interest of public authorities occurred at Port Lincoln, South Australia in 1897, when fourteen cases were reported out of a

²¹ Burnet and White, (1972). *Natural History*, p.92.

²² Paul, (1971). *History*, pp.79-80. Vermont in 1894 had 132 cases and was a substantial epidemic; Rutty, (1995). *Poliomyelitis in Canada*, p.44; Ross, J. C., (1993). *New Zealand*, pp.15-16; Gould, T. (1995), *A Summer Plague: polio and its survivors*, Yale University Press:New Haven and London, p.16; Fisher, P.J. (1967). *The Polio Story*, Heinemann, London, p.112; Buxton, A.J.G. (1977). *Poliomyelitis in South Australia 1937-1956*, Honours Dissertation, University of Adelaide, p.8.

population of 1500.²³ During the next decade several larger outbreaks were recorded. In 1905 twenty five cases were reported in Sydney, thirty-four at Stanmore, NSW, and one hundred and eight in Brisbane.²⁴ In 1908 there were one hundred and fifty-five cases in Victoria.²⁵

Polio was made a "notifiable disease" in Tasmania in 1911, Queensland, New South Wales and Western Australia in 1912,²⁶ Victoria in 1916, and South Australia in 1922.²⁷ While the number of polio notifications in each state has been recorded in the *Commonwealth Year Book* from 1929, the actual number of cases that occurred remains beyond reach, because many

²³ Buxton, (1977). *Poliomyelitis in South Australia*, p. 8. The date, derived here from the Parliamentary Papers of South Australia, is often given as 1895 in other sources, who probably base their dates on Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia: a history*, Commonwealth Government Printer: Canberra, p.326. The confusion may be with the first recorded death from Poliomyelitis which occurred in South Australia in 1895.

²⁴ Gilbert, A, and Inglis, K. (eds.), (1987). *Australians: a historical atlas*, Broadway, Fairfax Syme and Weldon Associates, pp.172-3, Article on Polio. The date for these outbreaks is given as 1904.

²⁵ *Public Health 1948*, (1949). Appendix XV, page 58, BL, 614.09 WES; Stephens, H. D. (1908). *Summary of an Epidemic of 135 Cases of Acute Anterior Poliomyelitis Occurring in Victoria in 1908*, Melbourne, Stillwell and Co; McKenzie, W. (1910). *The Treatment of Infantile Paralysis: a study of muscular action and muscle regeneration*, Melbourne: Stillwell and Co. Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p.326, gives different dates for these figures.

²⁶ Order in Council, 28 May 1912, BL, ACC 1003, AN 120/4, 595/45, p.21; Letter CPH to Local Health Authorities, 25 November 1916, BL, ACC 1003, AN 120/4,626/1925, p.1.

²⁷ Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p.326.

subclinical infections will have escaped notice.²⁸ The official record reveals [Figures 2 and 3] that in the period 1929-1966 there were 27,986 notifications of polio nationwide.²⁹ The worst periods of infection were 1937-38 (4,555),³⁰ 1945-46 (2,449), and 1949-56 (15,965). In contrast the virus appears to have been almost entirely dormant between 1939 and 1944 when only 384 notifications were received, although it is possible that figures were not accurately recorded due to the stringencies of the war effort. During the worst single year, 1951, 4,735 notifications were received, mostly from New South Wales (1,526), South Australia (1,456), and Queensland (1,030).³¹ After an initial flurry in 1938 epidemics of polio occurred in Western Australia in 1948 (311), 1954 (434), and 1956 (401), full discussion of which appears below in Chapters 4-9.

All Australian states recorded a dramatic decline in the incidence of polio following the introduction of mass immunisation with

²⁸ Buxton, (1977). *Pollomyelitis*, p. 84. Buxton's figures are drawn from the *Commonwealth Year Book*, but do not tally exactly. The figure of 70,000 cases, said to have occurred between 1936 and 1961, in Jones, R.F. (1991) Post Polio syndrome: what can we do? *MJA* Vol. 155, Sep.16, is based on an "estimate" that relies on work by Charlotte Leboeuf, (1990). *The late effects of Polio: information for health care providers*, Commonwealth Department of Community Services and Health, Canberra, p.14. Leboeuf appears to ignore the reported figures and calculates on the basis of the number of deaths multiplied by five or ten, a basis that I believe does not allow for variations in the mortality rates that occurred during epidemics. Wyatt, H.V. 1993) in Kiple, K. F. (ed.), *Cambridge*, p.942 states "In the past, cases of abortive polio and those with paralysis who later recovered were often included in statistics as polio cases. Today, only case with paralysis or paresis after 3 months are recorded as paralytic polio".

²⁹ Australian Health Information Service, (1965). *Health in Australia: the polio story*, p.10, [Figure 2] *Commonwealth Year book*, 1929-1966, [Figure 3].

³⁰ Buxton, (1977). *Pollomyelitis*, p. 63, notes that after 1937 the incidence in polio in Australia made it a national problem.

³¹ Buxton, (1977). *Pollomyelitis*, p. 62. A high rate of polio incidence in South Australia 1949-56 resulted in 4589 cases, 28% of the national total. In the period 1948-1956 Western Australia recorded 1475 cases.

Salk vaccine in 1956 [Figures 2 and 3], but in 1961-62 an alarming upsurge occurred in several states. A similar pattern was noticed in New Zealand and America at this time. The states worst affected, (NSW, 378 cases, and Queensland, 179 cases) were studied in detail.³² It was concluded that three doses of Salk vaccine protected between 77% and 87% of the population, but some were still at risk. It was recommended that four, or even five doses of Salk be given to ensure adequate protection, and the use of Sabin "live" or attenuated vaccine began to be considered. Sabin, unlike Salk which was a "killed" vaccine, had the potential for helping to protect people against an epidemic that had already commenced.

Disease and society

³² Boughton, C.R., Fine, R.D. and Burgess, P. (1963). "Poliomyelitis Epidemic in NSW, 1961-62: clinical experiences in the management of 196 patients", *MJA*, 2,20, 16 November, pp. 820-833. and Patrick, P.R. (1963). "Poliomyelitis in a Vaccinated Community: the 1961-2 Queensland epidemic", *MJA*, 2,20, 16 November, pp. 838-841. Type 1 polio virus was largely responsible for 196 cases studied in NSW. Twenty six had received one or more injections of Salk vaccine, and sixteen, one of whom died, had had three injections. There were 20 deaths, of which 17 had not been immunised. Ten pregnant women were all severely paralysed, and one of them died. Those aged 10-20 were relatively immune to polio, while majority of cases (52%) occurred in the 0-10 age range. There was a high incidence in the 20-35 year age group, in which men outnumbered women three to one. There was a high proportion of severe paralysis and respiratory paralysis. The results for Queensland were similar in many respects. There was low incidence in the 10-19 age group, the majority of cases (62%) were aged 0-9, and there was a high incidence in the 20-34 age bracket. Forty six cases of polio occurred in vaccinated people, seven of whom became severely paralysed. Twenty two of the vaccinated cases were identified as Type III virus. There were seven deaths, all in subjects who had not been immunised.

The concepts of disease and health have a long history with many nuances.³³ The relationship between disease and society is expressed through theories of public health, and the policies and practices that emanate from them. Sylvia Tesh suggests that four different theories, each connected with a different socio-political view of society, were used to explain disease during the nineteenth century; supernatural causation, miasma, contagion and personal behaviour.³⁴ Three of these have found a place in the twentieth century in the form of environmental health (miasma), germ theory (contagion), lifestyle (personal behaviour).³⁵ Supernatural theory, which offers religious rationale for the cause of disease, no longer has currency in the field of medical science, although it was popular prior to the Enlightenment.³⁶ Despite this it still forms a point of reference for many outside the medical profession who, for example, evoke sin in relation to the AIDS epidemic. And the religious impulse appears to be alive in the growing number of people who seek relief or a cure for their condition through the many forms of alternative “New Age” spiritual or holistic therapies available. Many polio survivors record religious thoughts and feelings in relation to their infection and its after effects, and use religious paradigms to make sense of their life.³⁷

³³ Wiener, P. (ed.), (1973). *Dictionary of The History of Ideas: studies of selected pivotal ideas*, New York: Scribners Sons. Volume 2, pp.395-407, “Health and Disease”.

³⁴ Tesh, S.N. (1988). *Hidden Arguments: political ideology and disease prevention policy*, New Brunswick: Rutgers University Press, p.9.

³⁵ Tesh, (1988). *Hidden Arguments*, pp.33-57.

³⁶ Tesh, (1988). *Hidden Arguments*, p.17.

³⁷ Woods Smith, D. (1994). Power and Spirituality in Polio survivors: a study based on Rogers' science, *Nursing Science Quarterly*, 8:3, pp.133-139.

Epidemic polio arose in a period when major changes were taking place in the understanding of disease and public health. The dominance of miasma based sanitation and quarantine policies was being challenged by new understandings of contagion based on discoveries made by microbiologists such as Joseph Lister, Robert Koch, and Louis Pasteur.³⁸ Public health practices began to swing toward new methods of diagnosis, prevention and cure. But in relation to polio continuing uncertainties concerning the cause and transmission of the virus led health authorities to implement methods of control, based on both miasma and germ theories, without being certain of their efficacy. Public health in nineteenth century Western Australia reflects the transition outlined above.³⁹

The basis of miasma was the ancient Greek notion of a link between climate, the corruption of air, and disease. Epidemics were thought to have been caused by miasmata or pollution.⁴⁰ From the time of Hippocrates "corrupted air" was "fumigated" by means of bonfires in the streets and, later, through firing cannons and the personal use of sweet or strongly smelling applications.

³⁸ Duffy, J. (1993). in Kiple, K.F. (ed.), *Cambridge World History of Human Disease*, Cambridge University Press, p.204.

³⁹ Snow, D.J.R. (1981). *Progress*, pp.31-32. In 1842, thirteen years after the foundation of the colony, an Act provided for the establishment of public slaughter-houses and prohibited unlicensed slaughtering of animals within town boundaries. In 1876 the 1871 Municipal Act was repealed and replaced with another which extended the powers of local authorities over matters affecting the environment, sanitation and housing. The Vaccination Act followed in 1878 and in 1886 the first Health Act was proclaimed which legislated for the control of infectious diseases, sanitation and other matters. These powers were extended in 1898 and in 1911 when a new Act came into being which forms the basis for current practice.

⁴⁰ Wiener, P. (ed.), (1973). *Dictionary*, Vol 2, p.397.

Although miasmatic theory is now regarded as invalid the sanitation movement that sprang from it produced significant gains in nineteenth century public health.⁴¹ Greater efforts were made to clean streets, dig deeper graves for the dead, ventilate rooms, and control the odours from cesspools, sewers and privies.⁴² One application of miasma theory can be seen in the approach taken to the polio in New York in 1916. Naomi Rogers has described this as a “dirt and disease” approach in which flies, and those parts of town inhabited by the less affluent, often migrant and black communities, were demonised.⁴³

As the bacteriological revolution advanced, health officials became preoccupied with new insights concerning contagion and the control of disease.⁴⁴ While the practice of developing good drainage and sanitation continued into the twentieth century, interest extended to the bacterial contamination of food and water.⁴⁵ Germ theory steadily shifted the emphasis towards the use of diagnostic techniques, vaccines and antitoxins. The new science seemed capable of providing the “real” explanation of all disease.⁴⁶ Tesh wrote -

The germ theory is virtually synonymous with science. It

⁴¹ Duffy, J. (1993). in Kiple, K.F. (ed.), *Cambridge*, p.204.

⁴² Tesh, (1988). *Hidden Arguments*, p.27.

⁴³ Rogers, N. (1992). *Dirt And Disease*, p. 1. During the same period the WA Public Health Department was concerned about the threat flies posed, see McCormick, H. (1917). *The Fly and The Baby, Papers Read at Meetings of the Certified Health Inspectors' Association of Western Australia*, Perth, pp.64-69.

⁴⁴ Duffy, J. (1993). in Kiple, K.F. (ed.), *Cambridge*, p.204.

⁴⁵ Graham Taylor, S. (1996). *Public Health in WA in the Post War Years: Draft Report*, Unpublished Manuscript, Perth, pp.2-.3.

⁴⁶ Rogers, (1992). *Dirt And Disease*, p.3; and Graham Taylor, S. (1996). *Public Health in WA*, p.3.

evokes images of white coats, sophisticated laboratories, dedicated researchers, and the relentless search for truth. Our society awards considerable prestige to people who investigate disease causality from the perspective of germ theory. Because their attention is fixed on empirical phenomena, they are “real scientists”.⁴⁷

Germ theory spawned the potent symbol of the scientific laboratory, and the elitism that grew from the belief that disease was a technical phenomenon that could only be properly understood by scientific experts.

During the polio era a variety of control methods were implemented: articles of clothing were removed from their infected owners to be fumigated, washed and sometimes burned.⁴⁸ Survivors record having clothes and personal effects confiscated because they were regarded as having “wogs” on them.⁴⁹ At the same time practices such as handshaking or kissing were discouraged,⁵⁰ and pamphlets were issued providing information regarding the scalding of milk, the preparation of fruit and vegetables, and the consumption ice-cream prepared outside the home.⁵¹

Quarantine restrictions in connection with polio were first introduced in Western Australia in 1937, on the recommendation of the consultative committee of doctors, specifically established by the Public Health Department to advise on matters related to the

⁴⁷ Tesh, (1988). *Hidden Arguments*, p.38.

⁴⁸ Tesh, (1988). *Hidden Arguments*, pp.11-12.

⁴⁹ Interview I, p.39.

⁵⁰ *Wagin Argus*, 21 March, 1932, p.2, and *Western Mail*, 12 August, 1937 p.25.

⁵¹ Pamphlet, BL, ACC 1003, AN 120/4, 944/1948, p.12.

disease.⁵² The conditions required visitors who arrived from nominated points of departure to be quarantined for twenty one days, or face penalties of up to £50. Quarantine restrictions were a manifestation of an increased awareness of the dangers of polio which, in 1937, resulted in its status being upgraded from that of "notifiable" to that of "dangerous infectious disease", following the outbreak of large epidemics of polio in Victoria and Tasmania.⁵³ The change gave the CPH temporary access to the special powers of the Health Act.⁵⁴

Quarantine restrictions were again imposed in Western Australia at the end of 1947 when South Australia and New Zealand were affected by polio epidemics.⁵⁵ All travellers from those ports, including those who had only passed through South Australia, had to be isolated. Any sickness that subsequently occurred in the host house had to be reported to the Public Health Department. Vigorous public debate was provoked when a group of 250 boys, who had passed through Adelaide on a tour the eastern states with the Young Australia League, (YAL) were quarantined on their return to Perth.⁵⁶

The application of quarantine restrictions to all members of a community proved economically and administratively impossible.

⁵² Letter, 18 November 1937, and reply, 16 December 1937 BL, ACC 1003, AN 120/4, 626/1925, pp.188, 189, 196 and 200.

⁵³ Minute paper, Executive Council, 9 September 1937, BL, ACC 1003, AN 120/4, 626/1925, p.35.

⁵⁴ Health Act 1911, Part ix - Infectious diseases, By-law 249,6, p.189.

⁵⁵ WA, 1 January 1948, p 5.

⁵⁶ WA, 1 January 1948, p. 5; 22 January 1948, p. 9.

The restriction of the movements of children who had had polio contacts, but not adults, resulted in the Public Health Department being criticised for its perceived lack of capacity to understand the disease and respond with effective control measures. For many years the behaviour of the virus was so little understood that, for the sake of being seen to respond to the crisis, health officials had to draw on every preventative measure they knew, despite being unsure of its efficacy.

Understanding the means of transmission

Although polio was identified as a virus in 1908, and germ theory had returned to popularity during the era of the epidemics, understanding the means of transmission of polio was a slow process that relied on ongoing research in many parts of the world. As early as 1912 Swedish experiments identified the polio virus in intestinal excreta⁵⁷ but the weight of opinion, as expressed by American leaders in the field such as Simon Flexner of the Rockefeller Institute for Medical Research, fell on entry through the exposed nerves of the nasal tracts as a result of the transference of oral/nasal droplets. This view dominated research until the 1950s⁵⁸ and in the late 1930s resulted in the development of dangerous prophylactic nasal sprays,⁵⁹ the use of

⁵⁷ Paul, J.R. (1971). *History*, p. 130. Discovered by C. Kling following an epidemic in Stockholm in 1911.

⁵⁸ Smith, F.B. (1990). The Victorian Poliomyelitis epidemic 1937-1938, in Caldwell, J. (ed.), (Vol. II, Ch. 53). *What we Know about Health Transition: the cultural, social and behavioural determinates of health*, The Proceedings of an International Workshop, May 1989, Canberra, p.873.

⁵⁹ Gould, T. (1995), *A Summer Plague*, p.69; Wilson, J.R. (1963). *Margin of Safety: the story of poliomyelitis vaccine*, Collins: London, p.49.

masks, and even a nasal clip, to prevent the entry of the virus.⁶⁰ Other agents, such as milk, were long suspected of being instrumental in the spread of disease.⁶¹ This fear was revived in regard to polio, much to the sorrow of dairymen and the manufacturers of ice cream.⁶²

Between 1938 and 1940 the Australian, Macfarlane Burnet obtained results which suggested that infection by polio occurred via the pharynx and the intestine, and that "polio virus would multiply in human foetal intestinal and buccal tissue".⁶³ Difficulties in obtaining sufficient tissue, and lack of confidence in his techniques, caused Burnet to stop short of the discovery, made a decade later by the American Enders, which enabled Salk to create a polio vaccine.⁶⁴

There is evidence that some researchers were reluctant to draw conclusions regarding the transmission of polio from the knowledge that the virus was present in the intestine and the faeces. During a polio epidemic in Victoria in 1946 a meeting of the Melbourne Paediatric Society discussed the pathology and

⁶⁰ Smith, F.B. (1990). in Caldwell, J. (ed.), (Vol. II, Ch. 53), p.868

⁶¹ Higgs, F. (1917). The Importance of a Pure Milk Supply, *Papers Read at Meetings of the Certified Health Inspector's Association of Western Australia*, Perth: Health Department.

⁶² Paul, (1971). *History*, pp. 178-181. In Australia, Dame Jean Macnamara, amongst others, helped keep this suspicion alive. See below, Chapters 4 and 5.

⁶³ Fenner, F. (ed.), (1990). *History of Microbiology in Australia*, Brolga Press, Curtin, pp.378-9. This discovery came about because a closed season on rhesus monkeys led to the use of cynomolgus monkeys from Singapore, which were susceptible to a new procedure.

⁶⁴ Fenner. (ed.), (1990). *Microbiology*, p.379. One result of the personal and political struggles that accompanied the history of polio is that Enders, Weller and Robbins, not Jonas Salk, received the Nobel Prize in 1954.

pathogenesis of poliomyelitis. Dr Reginald Webster observed that -

...the epidemiological significance of the facts established with regard to the constant presence of the virus in the faeces of subjects of poliomyelitis and many of their contacts was far reaching and profound... Faeces, sewage and flies seemed strong links in a chain of infection... This ...suggested strongly that poliomyelitis should be regarded at least provisionally as one of the excremental infective diseases, even as dysentery and typhoid fever.⁶⁵

Some of those present opposed Webster's views and the meeting did not discuss the means by which infected faecal particles could be transmitted. The links in Webster's "chain of infection" remained obscure, even at this late stage.

Although preference for the view that transmission occurred through the olfactory system was waning, interest continued to circle around the droplet theory, the importance of flies, and questions of the cleanliness of milk and water. At this stage no instructions were issued recommending intensive hand hygiene as a method of controlling the spread of polio, and although both the 1937 and 1946 Victorian epidemics had begun in winter, when there were fewer flies to effect the spread of the disease,⁶⁶ the meaning of this clue seems to have gone unnoticed.

Hesitance over the faecal contamination theory is evident in more modern writing. John Paul, who recognises that the "commonest mode of spread is by contact with an already infected person" stops

⁶⁵ Melbourne Paediatric Society, *Poliomyelitis, Pathology and Pathogenesis*, (1946). *Medical Journal of Australia*, Vol. 1, No 18, p.638.

⁶⁶ Melbourne Paediatric Society, *MJA*, (1946). Vol. 1, No 18, p.638.

short of naming faecal contamination as a key component, even though doubt is no longer necessary.⁶⁷ Jane Smith remains coy with her statement -

...nobody has ever completely settled the question of how polio is spread, though the best evidence suggests that the virus is excreted in the stool and passed through hand-to-hand or hand-to-mouth contact.⁶⁸

An even stronger sense of uncertainty can be found in the recent work by Sass who writes “the means by which the polio virus reaches the central nervous system is not definitely known”.⁶⁹

Health Professionals working in Western Australian hospitals and the Public Health Department during the 1950s were not so reluctant to consider the faecal contamination theory, or express its implications in new methods of polio control. At the point where the long awaited 1954 royal tour of Western Australia was in doubt because the state was in the grip of a polio epidemic the Public Health Department highlighted the faecal contamination theory, explained it to the public, and indicated what measures were necessary to circumvent transmission of the disease.⁷⁰ All children, in particular, were now expected to avoid sharing cups and towels, and to wash their hands before eating food, and after using the toilet.

⁶⁷ Paul, (1971). *History*, p.2.

⁶⁸ Smith, J.S. (1990). *Patenting the Sun*, p.36.

⁶⁹ Sass, E.J. (1996). *Polio's Legacy*, p.2. Sass has consulted Taber, C.L. (1970). *Taber's Cyclopedic Medical Dictionary*, Philadelphia: Davis Company.

⁷⁰ DN, 2 March 1954, p.2.

The circumstances of having to endure a severe epidemic at a time when large crowds would gather for the royal tour gave Western Australia a unique opportunity to test this theory. On the assumption that faecal particle transmission was the crucial link in the chain leading to polio infection the Public Health Department emphasised intensive personal and hand hygiene and proposed several measures governing crowd control. The plan was successful. During a six day period huge crowds assembled to see the royal couple but notifications of polio began to decrease from the date the tour commenced and did not rise again after the two week incubation period had passed. In 1948 [Figure 7], the opposite reaction had been observed after school holidays and the holding of People's Day and Children's Day at the Royal Show.⁷¹ Snow hastened to publicise his findings in the *Medical Journal of Australia*. The fact that the gathering of large crowds over a this period was not followed by an increased number of notifications, he said -

...suggests that the spread of poliomyelitis is attributable to the transference of infected faecal particles rather than to the droplet mechanism, and that the control measures which were based largely on hand hygiene, were justified.⁷²

Snow's boldness in accepting and applying the faecal contamination theory contrasts with others, and his views may have had influence in Western Australia if not elsewhere. Olga Wignall, whose daughter attended Leederville school, not far from

⁷¹ *Public Health 1948*, (1949). Appendix XV, p.63. BL, 614.09 WES.

⁷² Snow, D.J.R. (1955). Crowds and Poliomyelitis: with special reference to a recent epidemic in Western Australia, *MJA*, Vol. I, No.1. p.5. Snow, (1955). *Crowds*, p.5.

Princess Margaret Hospital (PMH), describes the effect of visits from the Director who came to lecture the parents and pupils on hygiene.

His frankness on personal matters had some women blushing and leaving the venue. When he addressed parents on the Three F's: flies, fingers and food, his graphic descriptions made a few people flee, never to return.⁷³

In view of the protracted nature of the faecal contamination debate, and an apparent lack of knowledge or acceptance of Dudley Snow's findings, it is difficult to avoid F.B Smith's conclusion that the subject was repugnant to the manners and sensibilities of the researchers.⁷⁴

The quest for a vaccine

The quest for an effective vaccine commenced in earnest following the realisation that polio was caused by a virus. Attempts to stimulate immunity were inspired by the use of successful prophylactic and convalescent sera already developed for such diseases as diphtheria, pneumonia, meningitis and typhoid.⁷⁵ Convalescent serum therapy was first recommended by the French scientist Netter. Experiments with serum were conducted in New York and Boston during the 1916 epidemic and were continued along both convalescent and prophylactic lines.⁷⁶ Doubts about

⁷³ Wignall, O. (1993). *Hellfire's Homechild*, Leeder, p.66. Faecal contamination was popularly known as the 'dirty finger' theory.

⁷⁴ Smith, F.B. (1990). in Caldwell, J. (ed.), (Vol. II, Ch. 53), p.875.

⁷⁵ Rogers, N. (1992). *Dirt and Disease*. p.96.

⁷⁶ Paul, (1971). *History*, pp.190-3.

the efficacy of serum caused it to be abandoned during the early 1930s. Paul considers the experiments were based on correct principles but the dosage used was too small and there was insufficient knowledge of polio available to direct the research.⁷⁷

The subsequent history of the polio vaccine is marked by two things. The debate over whether to pursue the use of live or killed vaccine, and the risks that were taken in the rush to be the first to produce an effective prophylactic. Between 1935 and 1955 three ill-fated trials were conducted before Salk vaccine was declared safe. The first was conducted by Dr Maurice Brodie, of Montreal, and the second by his competitor, Dr John Kolmer of Philadelphia. In 1935 Brodie successfully immunised a total of twenty monkeys with a form of the virus rendered non-infective using formalin. His knowledge that Kolmer was working on a similar project caused Brodie to rush into experimentation with humans but, although he had come close to the solution, he failed the safety test, was severely criticised, and his vaccine was never used again.⁷⁸

A severe polio epidemic in Philadelphia during 1932 provoked Kolmer to engage in a search for an effective vaccine. He experimented with a live but slightly attenuated virus which was tested on forty two monkeys, followed by a number of children and adults, including himself. A larger trial resulted in cases of vaccine related polio, some of them fatal, which occurred in localities where the virus was dormant. Kolmer's results,

⁷⁷ Paul, (1971). *History*, p.199. It is possible the sera, too, were variable.

⁷⁸ Paul, (1971). *History*, pp.254-256.

published in 1935, were severely criticised on grounds of safety,⁷⁹ and his vaccine was withdrawn.

Fear of polio and the horror of paralysis was so strong that experimentation with human subjects was discontinued for over a decade. After World War II a new form of blood serum was developed known as gamma globulin which was created by concentrating blood serum that contained polio antibodies.⁸⁰ The public was still justifiably nervous about human trials. But in addition to this gamma globulin gave only six weeks protection and there was difficulty in obtaining sufficient supplies of blood that contained polio antibodies.⁸¹

Jonas Salk eventually developed his vaccine in the early 1950s, but before it could be released to the public, he and his sponsors fell victim to the same pressures that had brought down Brodie and Kolmer. The infamous "Cutter" incident has become a landmark in polio history.

During an American trial of Salk vaccine held in 1954, live virus was found to be present in vaccine manufactured by the Cutter Laboratories of Berkeley, California. The vaccine was hurriedly withdrawn but the error resulted in the infection of 204 children, of whom three quarters became paralysed and eleven died.⁸²

⁷⁹ Paul, (1971). *History*, pp.256-258.

⁸⁰ Rogers, N. (1992). *Dirt and Disease*. p.178.

⁸¹ Paul, (1971). *History*, pp.198-9; 384-394.

⁸² Paul, (1971). *History*, p. 437; Gould, (1995). *A Summer Plague*, pp.153-157.

Throughout the world the incident seriously undermined public confidence in the use of Salk vaccine. In Australia the Public Health Committee of the NH&MRC reversed an earlier decision to import American Salk vaccine,⁸³ recommending local production according to standards set by the Commonwealth Department of Health.⁸⁴ Safety considerations were supported by the knowledge that Canada had used locally manufactured Salk vaccine without any sign of a mishap, and a similar story had emerged with respect to Denmark and South Africa. From America Sir Macfarlane Burnet, Director of Melbourne's Walter and Eliza Hall Institute, stated that Australian Salk would be manufactured correctly and properly tested.⁸⁵ And in Western Australia the CPH gave the assurance that the vaccine would be tested "even more rigidly" than in Canada and the USA.⁸⁶

Weird and wonderful ideas

The persistent lack of an effective antidote and reliable knowledge

⁸³ Minutes, NH& MRC, May 1955, BL, ACC 1003, AN 120/4, 411/55, pp.58-62.

⁸⁴ Report, May 1955, BL, ACC 1003, AN 120/4, 411/55, p.80; Letter, Health Department to BMA, 25 October 1955, BL, ACC 1003, AN 120/4, 1242/55, pp.26-28;

⁸⁵ WA, 5 April 1956, p.10. Further detail concerning vaccine manufacture appears in Chapter 8 below.

⁸⁶ WA, 1 March 1956, p.2.

concerning the causes of the disease and its behaviour stimulated a wide variety of theories from medical and lay sources alike. A similar phenomenon, which seems to have arisen for the same reason - lack of accurate knowledge - is evident in Australia during the 1919 influenza pandemic.⁸⁷ Typical of the many offerings made during the polio era is this, from a letter written to the Commissioner of Public Health (CPH) in 1938.

I have been reading with great interest the article on Infantile Paralysis. Will you allow me to give my humble opinion on this matter. When I came to this country twelve months ago, I was struck by so many children running the streets without any shoes. I am convinced that this is mainly the cause of this disease in children, when you think of the microbes, which are about in every country, and must inevitably get on their feet, many, I should imagine go to bed with these microbes still on their feet, with the result that they get into their body. I have come from England where the children are shod, except in the very, very poor parts of London and very few of them without shoes, there are very few cases of Infantile paralysis in England.⁸⁸

The CPH appealed to the authority of science in his firm, direct reply -

...regarding your theory I must point out to you that scientists have been investigating this disease for many years, and there is no evidence whatever that the virus of the disease occurs on the ground, nor is it likely that infections of this kind would do so.⁸⁹

⁸⁷ McQueen, H. The 'Spanish' Influenza Pandemic in Australia, 1912-1919, in Roe, J. (ed.), (1976). *Social Policy In Australia: some perspectives 1901-1975*, Cassell, Stanmore, p.139; Taska, L, The Masked disease: Oral History, Memory and the Influenza Pandemic 1918-19, in Darian-Smith, K, and Hamilton, P. (eds.), (1994), *Memory and History*, p.83.

⁸⁸ Letter AH to CPH, 9 March 1938, BL, ACC 1003, AN 120/4, 626/1925, pp.287-89.

⁸⁹ Letter CPH to AH, 10 March 1938, BL, ACC 1003, AN 120/4, 626/1925, p.291.

Manifestations of a similar interest in popular science and medicine are to be found elsewhere. Naomi Rogers reports that during the 1916 polio epidemic in New York doctors in the American Department of Health received over two hundred letters containing suggestions from the public. Simon Flexner, director of the Rockefeller Institute laboratories did not reply to them, and filed them under "Crank Letters and Fantastic Theories".⁹⁰ Medical experts were in despair over the suggestions they received. Haven Emerson, commissioner of the New York Health Department wrote "one hardly knows whether to laugh at the fantasies or weep over the ignorance and superstition exhibited".⁹¹ An elitist approach to scientific and medical knowledge existed and those with a professional interest in public health were embarrassed by these expressions of interest. But the lay public, which for centuries has had opinions about the aetiologies of diseases, was unashamed and readily proffered its views. Some suggestions were ridiculous but others were surprisingly close to the mark.⁹²

In Western Australia, between 1938 and 1956, many such letters were published in the Press, and received by the Public Health Department whose officers carefully wrote replies.⁹³ Officialdom was polite, but sometimes irritated and embarrassed by this mail and no reference is made to it in the Annual Reports. Though neglected by the official record these suggestions are part of the

⁹⁰ Rogers, N. (1992). *Dirt and Disease*. p.108.

⁹¹ Rogers, N. (1992). *Dirt and Disease*. pp.108-9.

⁹² Gould, T. (1995). *A Summer Plague*. pp.20 ff.

⁹³ The Victorian Epidemic of 1937-38 also witness the public expression of ideas concerning the causes and cures for polio. See Smith, F.B. in Caldwell, J. (ed.), (1990). Vol. II, Ch. 53, pp.869-870.

social response to the polio epidemics and form a sub text or counter narrative to the official history. It is obvious that there is a link between the medical establishment's outlook on "weird and wonderful ideas" and its opposition to the more serious forms of quackery that are evident during these years.⁹⁴ There may also be a link between this and its fierce resistance to Sister Elizabeth Kenny whose alternative methods for the treatment for paralytic polio were judged to have little or no basis in scientific or clinical fact.⁹⁵ Kenny, a notable self-publicist who had a film made about her work, was unable to achieve recognition for herself within the official history of polio in Australia. A recent work investigating her was inspired partly by the fact that she has shared the same silence that has surrounded the disease.⁹⁶

Fear, frustration and the will to overcome

For the first half of the twentieth century people in many countries of the world, including Australia, are said to have lived in great fear of paralytic polio. Far greater numbers suffered and died from diseases such as diphtheria, whooping cough, heart disease and

⁹⁴ Louise, M. (1956). *Protection From Polio and Animal Research*, Adelaide; Gibbs, F.J. (1952). *Polio and Kindred Diseases of Chemical Origin*, Self Published; de Lout, D.W. (1956). *Jew Mass Poison American Children*, Circular, and Correspondence, Jewish Board of Deputies to Prime Minister Menzies; C.E.Cook to PM, Australian Archives, A1658/1, 259/1/17, Propaganda Against Immunisation.

⁹⁵ Willis, E. (1979). Sister Kenny and the Evolution of the Occupational Division of Labour in Health Care, *The Australian and New Zealand Journal of Sociology*, Vol 15, No 3, pp.30-38, especially pp. 32-34. See also Martyr, P. (1994). *The Professional Development of Rehabilitation in Australia, 1870-1981*, University of Western Australia: PhD Thesis, History, Chapter 5 and Martyr, P. (1997). "A Small Price to Pay For Peace: the Elizabeth Kenny Controversy Re-examined", *Australian Historical Studies*, Volume 28, Number 108, Melbourne, pp.47-65.

⁹⁶ Wilson, J. R. (1995). *Through Kenny's Eyes: an exploration of Sister Elizabeth Kenny's views about nursing*, Townsville, Royal College of Nursing, p.4.

cancer, but it is evident that polio evoked fear among medical professionals and members of the public alike.⁹⁷

The early listing of polio as an infectious disease indicates the West Australian Health authorities were alert to the threat it posed and it is evident that fear of the virus did not suddenly erupt. In 1916, the year in which severe epidemics occurred in New York and New Zealand, Everitt Atkinson, the CPH for Western Australia, wrote to Local Health Authorities and said -

It is quite possible that within the next year or two the infection may make its appearance in the State in epidemic form, and in order to guard against this, it will be necessary for Local Authorities to carry out the well recognised measures of disinfection and isolation in connection with every case of Infantile Paralysis that is notified to them.⁹⁸

The dramatic, unpredictable and largely inexplicable increase in the number and intensity of polio epidemics in Australia produced a high level of fear in the community. Paralysis guaranteed a life of physical difficulty and, almost inevitably, economic hardship. Concern was felt for the limited prospects that awaited a child who became paralysed. In 1910 William (Colin) McKenzie, M.D., (later Sir), wrote -

Because of its early onset, [polio] becomes at once a matter of great economic importance, since a lame member of the community is worth less in the struggle for existence than

⁹⁷ Greenland, W. (1990). *Infantile Paralysis (Poliomyelitis) in New South Wales, 1930-1940: a study of perceptions and reactions*, unpublished Honours Thesis, University of New South Wales, pp.2 and 11. Greenland accepts the view that polio was more feared than most, arguing that the fear was fueled by ignorance, a sense of helplessness, and fear of disability.

⁹⁸ Circular Letter, 25 November 1916, CPH to Local Health Authorities, BL, ACC 1003, AN 120/4, 626/1925, p.1.

were he physically sound.⁹⁹

The image of a severely paralysed child kept the fear of polio alive even after it was realised that adults were also affected by the virus. One root of this fear was the fate of being “worth less in the struggle for existence”. The horror of being crippled was also associated with not being able to earn a proper living and having to rely on the State for support, perhaps for the rest of one’s life. In the late 1930s Dr Laurence Macdonald encapsulated the feelings of many when he wrote -

While it is true that as a fatal disease Poliomyelitis is of small account when compared with many of the other ills of childhood, the summation of its effects over a period of years has produced a large body of permanent cripples, the bulk of whom throughout life are dependent on the State for support.¹⁰⁰

Any form of disability raised doubts about the prospect of physical and economic survival. A link can be made between this and the theory of eugenics which, during the 1920s and 30s, prevented the development of a positive image of disability, and spurred those who were disabled to prove they suffered no moral or intellectual

⁹⁹ McKenzie, W. (1910). *The Treatment of Infantile Paralysis*, p.10. At some points Australian culture resisted the idea of “economic wastage” due to disability, and the idea of anyone becoming “a burden on the state”. For discussion of this see Greenland, W. (1990). *Infantile Paralysis*, pp. 26, 47-48, 60, and Atkinson, A., (1996). *The Role of the Colonial Government in the Introduction of Chinese Labour to Western Australia in the Nineteenth Century*, Unpublished paper, Edith Cowan University, p.17. Chinese labourers who were recruited for the labour force, but who were found likely to become “burdens on the state” through requiring admission to colonial institutions as patients, paupers or prisoners, were returned to their homeland.

¹⁰⁰ Macdonald, L. (1930). *The Treatment of Poliomyelitis*, *MJA*, Vol. I, No. 19, p.797.

Medical authorities considered media practices helped foster fear of polio. During the 1948 epidemic in Western Australia the number of reported polio cases was published each day in the newspaper and on Saturday the weekly result was summarised, rather like a war-time casualty list.¹⁰² The Commissioner complained -

Infantile paralysis receives far more attention from the Press than its relative incidence merits. Every new case is counted and reported with such details as may be gleaned for the purpose. This is true of no other notifiable disease, although several of these occur in much greater numbers over longer periods and cause... much greater damage....¹⁰³

Very powerful imagery was used to represent polio, as reflected in the series of cartoons produced in Western Australian newspapers in 1948,¹⁰⁴ and the recourse to military metaphors such as “the war against polio”. The more xenophobic members of the public stigmatised visitors from infected areas as polluters, whether from interstate or within the state, called for children entering the state to be tested, and for travellers to be banned.¹⁰⁵ In Western Australia fear of polio reached an hysterical pitch prior to the royal visit in 1954,¹⁰⁶ but began to subside once mass immunisation commenced in 1956.

¹⁰¹ Morris, J. (1993). *Pride Against Prejudice: transforming attitudes to disability*, Women's Press: London, p.51.

¹⁰² WA, 9 June 1948, p.5, is a typical example.

¹⁰³ DN, 23 January 1948, p.2.

¹⁰⁴ See below, Chapter 5.

¹⁰⁵ Letter, 3 September 1937, and reply, 4 September 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.158-9.

¹⁰⁶ *Report of the Commissioner of Public Health for the year 1954*, (1956). Appendix VIII, p.60, BL, 6 14.09 WES.

Fear of polio was not confined to Australia. Christopher J. Ruddy has written of Canada that “most people knew a polio victim, but nobody wanted to become one”.¹⁰⁷ American Jane S. Smith has written, “to many people, there were far worse things than dying of paralytic polio. You could get the disease and live”.¹⁰⁸ Susan Sontag has written -

The most terrifying illnesses are those perceived not just as lethal, but as dehumanising, literally so... Polio's effects could be horrifying - it withered the body - but it did not mark or rot the flesh: it was not repulsive. Further, polio affected the body only, not the face. The relatively appropriate, unmetaphorical reaction to polio owes much to the privileged status of the face, so determining of our evaluation of physical beauty and of physical ruin.¹⁰⁹

While it is possible to accept that Sontag's view that diseases affecting the face are particularly repulsive, her outlook is difficult to reconcile with the fear and stigmatisation of polio, and other forms of disability, that was experienced in Australia and elsewhere. The visual image of a child's body, crippled from paralytic polio, became the source of powerful feelings of fear, shame and embarrassment, both for those who suffered in this way and for those who had to live close to them.¹¹⁰ Alan Marshall identifies the presence of stigmatisation in his experience, but

¹⁰⁷ Ruddy, C. J. (1995). *Polio in Canada*, p.12.

¹⁰⁸ Smith, J.S. (1990). *Patenting the Sun*, p.37.

¹⁰⁹ Sontag, S. (1991). *Illness as Metaphor: AIDS and its metaphors*, Harmondsworth: Penguin, pp.124,125.

¹¹⁰ Greenland, W. (1990). *Infantile Paralysis*, p 52. In 1928 Sydney Rotarians conducting a survey of the needs of crippled children found that, because of their own shame, many parents concealed by their children at home to protect them from ridicule. And p.61 “Fear of disability was a significant component in the overall fear of infantile paralysis”.

In childhood a useless leg does not bring with it a sense of shame; it is only when one learns to interpret the glance of people unable to hide their feelings that one experiences a desire to avoid them... Suffering because of being crippled is not for you in your childhood; it is reserved for those men and women who look at you.¹¹¹

Although Marshall plays down his experience, the feeling of shame and embarrassment a child affected by paralytic polio may learn from adult observers added one more dimension to the struggle already being faced; life with a dysfunctional body in the context of a society that expected all its members to be capable of able-bodied performance. The parents of a boy, who had polio in Western Australia 1951, reported -

Our friends sort of dropped off a bit... and it was a stigma on the family. Grandma was extremely distressed but she was very upset to think that this dreadful thing had happened to her son's child... but in those days if anyone had any kind of a slight disability or anything wrong it was a major no-no, you didn't tell your friends, you didn't do anything.¹¹²

The distress caused by stigmatisation is here linked to the loss of the ideal of a "perfect body" capable full economic and physical performance. A woman who had polio as a child in 1954 testifies her parents and siblings never discussed the subject. And when she told her friends at school they maintained a stony silence.

..I captained the basketball team in Sixth Grade and in the first year I was really having trouble, I couldn't quite keep up

¹¹¹ Marshall, A. (1955). *Puddles*, p. 71, p.73.

¹¹² Interview A, p.3.

with the physical demands of the sport just at that time... so I dropped out and I told them it was because I had polio and... they treated me like a leper. I was really shocked by that and they never mentioned it again.¹¹³

The impact of such stigmatising experiences took decades to resolve, that is, if the polio survivor, or the family had the will to face the emotional issues involved and could find support for embarking on such a project.

Those parents whose children survived to live with profound paralysis were spared the pain of bereavement, but had to consider what physical social supports would be available for their offspring once they were no longer present to give assistance. Adequate after-care required special support which demanded extra resources. Provided their case was genuine and they were unable to meet the costs themselves polio survivors enjoyed the benefit of ongoing support, which government and community sources in Western Australia supplied.¹¹⁴ For example the Public Health Department supported a request to provide a new wheel chair for a male survivor who -

...has shown great fortitude and determination in attempting to overcome his severe handicap. He is studying accountancy and has made considerable progress. The provision of a wheel chair would assist him to overcome

¹¹³ Interview C, p.29.

¹¹⁴ See File 'Poliomyelitis, Supply of equipment for post polio cases', BL, ACC 1003, AN 120/4, 1945/59 1003, AN 120/4, 1945/59. The file contains over 240 pages of correspondence, mostly related to the most severe cases requiring after care. An Almoner at PMH assessed cases for their ability to pay. In 1951, H.C. Smith, a farmer from Ballaying in Western Australia, was deemed "Financially ineligible for further O.P. [Out Patient] treatment" because his income was too high. Assessment report and Continuation card in the possession of the author.

practical problems which now obstruct his efforts. The cost would be in the vicinity of £70 and funds are available.¹¹⁵

This particular survivor, who was severely paralysed, was enterprising and inventive. He designed a trolley that converted into a wheel chair which the Splint Department manufactured for him and other survivors to use. The design was passed on to the Children's Hospital in Victoria.¹¹⁶ The rapport the Public Health Department developed with him was linked with his independence as well as his "great fortitude and determination"- in other words - his heroism.

The culture of denial

The effectiveness of the vaccination campaigns is only one reason for the lack of public discussion of polio. Evidence suggests that a strong culture of minimising or denying the effects of polio has existed, as it had done for other forms of disability, and that this is part of the strong desire to overcome the effects of the disease, even to the point of living as though no physical or other deficits have been created. In his autobiography, *I Can Jump Puddles*, Alan Marshall wrote -

The word "crippled", to me, suggested a condition that could be applied to some people, but not myself. But, since I so often heard people refer to me as crippled, I was forced to concede that I must fit this description, yet retained a conviction that though being crippled was obviously a

¹¹⁵ Letter CPH to Minister for Health, 27 February 1964, BL, ACC 1003, AN 120/4, 1945/59, p.240.

¹¹⁶ File 'Supply of equipment for post polio cases', BL, ACC 1003, AN 120/4, 1945/59, pp.25-29.

distressing state for some people, with me it didn't matter. The crippled child is not conscious of the handicap implied by his useless legs. They are often inconvenient or annoying but he is confident that they will never prevent him doing what he wants to do or being whatever he wishes to be. If he considers them a handicap it is because he has been told they are.¹¹⁷

At the time of writing his biography Marshall remembered that, as a child, being a cripple was not something that was part of his self-concept.¹¹⁸ He gives further examples of his refusal to take notice of his condition and considers that such a perception does not come from within the afflicted one, but from people who categorise in this way.¹¹⁹ While there is no reason to doubt his childhood experience, it is clear that his outlook includes his reflection on this subject as an adult.

Evidence also suggests that the attitude of some members of the medical profession encouraged those with a disability to overcome their deficits and become part of the mainstream of life. West Australian orthopedic surgeon, the late Sir George Bedbrook, wrote in the Foreword of polio survivor Vivienne Overheu's autobiography -

Throughout the narrative, it is her ability that shines out rather than her disability and this, indeed, is the goal that

¹¹⁷ Marshall, A. (1955). *Puddles*, p.71.

¹¹⁸ His disease was polio, but a similar attitude can be detected in connection with other forms of disability where it was believed the effects had to be overcome, minimised or denied to ensure social and personal success to the survivor. See for example Humphries, S. and Gordon, P. (1992). *Out Of Sight: the experience of disability 1900-1950*, Northcote House, Plymouth, p.42 "For David Swift the ultimate aim was to his disability altogether and to make himself appear exactly the same as other children."

¹¹⁹ Marshall, A. (1955). *Puddles*, pp. 99-100, p.195.

all disabled people are striving for.¹²⁰

After being paralysed by polio in 1954 the author battled with the consequences to live a full life which included marriage, children, and duties as a farmer's wife. The title of her book, *It Helps To Be Stubborn*, was chosen because of the particular brand of determination - the "cussedness" - the which gave her the will to fight. Susan Sontag refers to the German philosopher Schopenhauer when she wrote -

"The will exhibits itself as organised body"... Recovery from a disease depends on the will assuming "dictatorial power in order to subsume the rebellious forces" of that body.¹²¹

A heroic style in the face of difficulties, strong willed behaviour, stubbornness, denial and, often, an outstanding level of achievement, is found amongst polio survivors. "Throw off your pessimism, and determine to help yourself",¹²² was the advice of Dr John Colebatch who had polio at 24 years of age and a year later was shown with a frame he invented which made him mobile at home. The evidence suggests that once a person became paralysed the prevailing social and medical culture trained them to overcome their difficulties, an attitude that often led to what could be described as overcompensation. Many drove themselves to reach the same level of achievement as those living without a disability. The following report on the 1981 West Australian People's Marathon provides a case in point. Although the official

¹²⁰ Overheu, V. (1984). *It Helps to Be Stubborn!* St George Books: Perth, p.5.

¹²¹ Sontag, S. (1991). *Metaphor*, pp.44-45.

¹²² *DN*, 13 April 1954, p.1.

maximum time allowed for the race was five hours the time keeper left the timing gates open a few minutes longer to allow the last competitor, polio survivor Tony Parnell, to cross the line. Parnell -

...whose right leg is completely withered with virtually no muscle structure, ... uses it purely as support while he drives with his good leg. A magnificent effort... he took up running because his doctor told him he couldn't do it, and he decided otherwise.¹²³

The biographies of polio survivors frequently chart the course of one who exercised rigid discipline in order to restore lost capacities. If regained these capacities can be retained, at first, because polio is not a degenerative disease. Many survivors describe themselves as having “had” polio, and have difficulty acknowledging the legacy of special needs the disease created. Indeed, some have gone out of their way to ignore them.

After surveying several biographies, Mary Westbrook summarised the experience of polio survivors as governed by “ignore your distress: hard work and cheerful acceptance will overcome polio”.¹²⁴ Denial and hard work was the salve applied to wasted muscles and twisted lives. “Use it or lose it” was the programme instilled into many polio survivors, and by this means they built up their strength, overcame the effects of their affliction and moved into the mainstream of life.¹²⁵ Unfortunately in the long term this has proved to be the reverse of the strategy needed to care for and

¹²³ Western Australian Marathon Club, *Newsletter*, Spring 1981, p.12.

¹²⁴ Westbrook, M. (1996). Early Memories of Polio-Survivors: Memories Versus the Official Myths, *Proceedings*, International Post-Polio Conference, NSW, p.5-6.

¹²⁵ Scheer, J. and Luborsky, M.L. (1991). Post-Polio Sequelae: the cultural context of polio biographies, *Orthopaedics*, Vol. 14, No 11, pp.1178-9.

preserve weakened muscles and twisted bodies. For some survivors the dividend is now being paid in significant psychological distress,¹²⁶ and the curtailment of activity at an earlier age than might otherwise have been the case. As understanding of Post Polio Syndrome develops polio survivors are learning they must “conserve or lose it”, a program that involves them in a complete reorientation in life. Conservation means having to recognise and face their own special needs, refusing to deny or minimise their difficulties, and letting go of the pretense that they can perform as people without a disability. This is the challenge facing polio survivors in the 1990s.

FDR: icon of polio's social meaning

The American President Franklin Delano Roosevelt (FDR) has been a primary icon of two social meanings which have become attached to polio; the will to overcome the effects of polio and the culture of denial. FDR masked the effects of his affliction and neutralised the negative public image of his paralysis in order to gain the Presidency of the United States of America, which he succeeded in doing in 1932, 1936, 1940 and 1944.¹²⁷ Recently North American based historians, using a variety of methodologies, have begun to expand and reinterpret the understanding of the

¹²⁶ Conrady, L.J., Wish, J.R., Agre, J.C., Rodriguez, A.A., Sperling, K.B., (1989). Psychologic Characteristics of Polio Survivors: a preliminary report, *Archive of Physical Medical Rehabilitation*, Vol. 70, p.462.

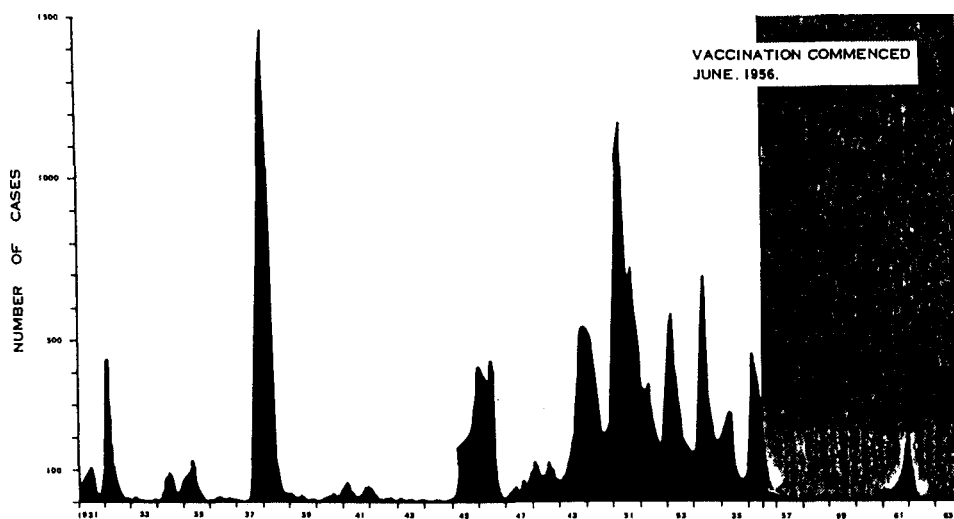
¹²⁷ Gallagher, H.G.(1994). *FDR's Splendid Deception*, Vandamere Press, Arlington, gives the full account of FDR's survival of polio, the development of Warm Springs, the March of the Dimes, and his Presidency of the USA.

experience of polio in the United States.¹²⁸ At the same time published and unpublished research from Canada, New Zealand and Australia is providing the ingredients for the development of an international perspective on the polio era.¹²⁹ The process of reappraising the effect polio had on the lives of individuals and communities in twentieth century is under way.

¹²⁸ Rogers, N. (1992). *Dirt and Disease*, Smith, J.S. (1990). *Patenting the Sun*, and Gallagher, H.G. (1994). *Splendid Deception*, are authors in this category.

¹²⁹ Gould, T. (1995). *A Summer Plague*, writes with England and the USA in view, Ruddy, C. J. (1995). *Do something! Do Anything! Poliomyelitis in Canada 1927-1962*, Unpublished doctoral dissertation, University of Toronto, Canada, argues that the American perspective was not the only one, and an unpublished thesis by Ross, J.C. (1993). *A History of Polio in New Zealand*, MA, University of Canterbury, provides a thorough account of polio epidemics in that country.

Figure 2: Cases of polio notified in Australia 1931-1963, Health in Australia, (1963) *The Polio Story*: Australian Health Information and Research Service, p.10



CASES OF POLIO IN AUSTRALIA FROM 1931 to 1963.

(Graph line is plotted according to the number of cases notified in each period of two months.)

Figure 3: Cases of polio notified in Australia: 1929-1966, *Commonwealth Year Book*, 1929-1966.

Year	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
1929	240	144	22	8	10	12	-	-	440
1930	30	93	4	15	4	113	-	1	260
1931	106	276	45	27	-	8	-	-	462
1932	382	27	284	18	2	3	1	-	717
1933	12	16	11	13	3	1	-	-	56
1934	91	182	16	4	5	32	-	-	330
1935	181	64	21	18	7	4	-	1	296
1936	22	7	13	5	3	-	-	-	50
1937	70	1369	19	85	15	299	-	-	1857
1938	687	807	162	284	47	707	1	3	2698
1939	33	42	23	4	5	1	1	-	109
1940	11	19	44	63	2	-	-	-	139
1941	-	-	-	-	-	-	-	-	not available
1942	34	23	7	3	18	7	-	-	92
1943	-	-	-	-	-	-	-	-	not available
1944	15	9	7	2	5	3	-	-	41
1945	668	238	299	9	5	3	-	3	1226
1946	656	247	149	66	2	98	-	5	1223
1947	83	126	19	55	2	1	-	2	288
1948	91	56	37	89	311	7	1	1	593
1949	183	761	20	582	61	36	-	5	1648
1950	789	202	106	972	59	51	-	27	2206
1951	1526	433	1030	1456	94	171	8	17	4735
1952	414	297	165	709	37	98	12	1	1733
1953	630	284	207	398	44	112	1	1	1677
1954	555	569	134	176	436	10	-	26	1906
1955	222	235	190	182	33	7	4	1	874
1956	240	251	112	122	401	55	-	13	1194
1957	58	13	24	16	8	6	-	-	125
1958	23	60	5	10	2	-	-	-	100
1959	16	30	6	2	3	-	-	-	56
1960	9	23	6	10	4	36	17	-	105
1961	201	50	141	44	2	11	1	-	450
1962	177	20	38	17	4	-	1	2	259
1963	3	19	1	8	5	-	-	-	36
1964	1	6	-	-	-	-	-	-	7
1965	3	-	-	-	-	-	1	-	4
1966	-	-	1	-	-	-	-	-	1

CHAPTER 3: Literature Review

The polio virus knew no political or social boundaries. Our understanding of the epidemics in Western Australia can therefore be enriched by insights from work on polio in other contexts. This chapter provides an international perspective for this thesis through reviewing key items of literature related to the historiography of poliomyelitis. As such it stands as a framing chapter for the West Australian experience which makes up the bulk of this work. Medical and scientific writings have had a prominent place in this historiography, along with histories of significant figures such as Jonas Salk and FDR. Increased attention paid by historians to medical and public health topics has led to a growing body of social histories of disease, while the emergence of PPS, and the willingness of polio survivors to record their stories, is ensuring that polio has a place on this agenda. The medical history cannot be ignored but the particular aim here is to discuss works that investigate polio from a social and historical point of view.

A standard work in this field is *A History of Poliomyelitis*, a natural history of the disease by the late John R. Paul. The author gained medical qualifications early in this century and was intimately involved as a participant in the medical history of the polio era. He became a founding member of the Yale Poliomyelitis Study Unit (originally known as the Yale Poliomyelitis Commission), a research unit set up in 1931,¹ served on the Immunisation

¹ Paul, J.R. (1971). *History*, p.200.

Committee of the NFIP, conducted significant epidemiological research himself,² and knew personally many of the scientists and medical professionals who searched to understand the disease and find an effective vaccine. As a participant observer Paul is credited with telling the history of the political and scientific infighting with some degree of objectivity.³ In *A History of Poliomyelitis* he states his aim is to document, rather than interpret, this history and reveal for the reader the successes, frustrations and blind alleys of the polio research.

Paul stays within his professional field and does not make formal use of perspectives such as those that would be provided, for example, by environmental or social sciences.⁴ He frames his history within comparative medical knowledge dating from earliest times, but concentrates on the the history of the modern period. Paul acknowledges that, due to variations in the “goals, philosophies” and the “cultural settings” in which research has taken place, the medical approach to polio has changed immeasurably since the nineteenth century. Polio has been reinterpreted as the result of new medical and scientific forms of analysis that have been developed, particularly during twentieth century, and Paul expects this process of reinterpretation to continue.

Paul's natural, medical history nevertheless offers some social and psychological insights. He contrasts the stoical outlook of the

² Paul, J.R. (1971). *History*, p.360.

³ Gould, T. (1995). *A Summer Plague*. p.326.

⁴ Paul, J.R. (1971). *History*, p.xv.

nineteenth century - which regarded paralysis during infancy as inevitable for some children - with a more contemporary understanding that viewed with “dismay” the “fearful handicap” it was for a child to endure the “crippling deformity” brought about by polio.⁵ While he recognises these changes in perspective, Paul does not dwell on the social bases for them, and locates himself within the sphere of twentieth century medicine.

Paul characterises the quest for a vaccine as a cause which intensified and assumed pseudo-religious overtones, largely due to the influence of the NFIP. It was a “crusade” which “conquered” polio - a very “militaristic” style of language which others have also used, and is explored elsewhere in this thesis.⁶ The crusade against polio, Paul asserts, “has been described as one of the greatest technical and humanistic triumphs of our age”. Paul describes the attitude to polio in twentieth-century America as changing from the passivity of the past to a new activism which aimed to “stamp out this pestilence and alleviate the suffering and tragedy it inflicted”.⁷ I consider that the new activism can be interpreted as the medical profession’s version of “the will to overcome” polio and its effects.

The emotive descriptions Paul used at times in relation to polio⁸

⁵ Paul, J.R. (1971). *History*, p.xv.

⁶ See below Chapters 4-8.

⁷ Paul, J.R. (1971). *History*, p.xv.

⁸ Paul, J.R. (1971). *History*, p.1. This is also evident from the reflection he offers in connection with the standard clinical definition for polio in use during the 1940s and 1950s, when he asserted that this description “falls far short of the usual picture which this disease conjures up in the minds of most people”.

reveal that he himself was caught up in the culture surrounding the disease, but he also recognised the need for detachment. Paul is able to acknowledge that while the vaccination programme turned out to be a success, it was not the "victorious conquest" that many hoped for. He wrote -

...the temptation to write this account as a complete success story has been almost irresistible. The events during the first half of the twentieth century which led up to the eventual conquest of poliomyelitis and the almost unbelievable decline in epidemics as a result of vaccination have the makings of a dramatic story with a triumphant ending...⁹

After he has dealt with the history of the western world's relationship with polio, particularly as it affected the United States of America, a significant proportion of the last five chapters of his book is devoted to the problems of the vaccine, especially unfavourable reactions and the controversies that attended them.¹⁰ Paul argues that the story of polio is not over, it will continue to grow and change as new challenges, revelations and insights emerge, if not in the western world, in countries where the improvements in public health are provoking the appearance of epidemics, as first happened in Sweden in the 1880s. He concludes -

The existence of such a precarious and unresolved situation is the reason why this history cannot claim to be a completely triumphant success story. The road will lead up hill for many years to come.¹¹

⁹ Paul, J.R. (1971). *History*, p.xiv.

¹⁰ Paul, J.R. (1971). *History*, p.468.

¹¹ Paul, J.R. (1971). *History*, p.469.

Subsequent history has shown Paul was correct, and somewhat prophetic, when he identified the potential for an ongoing and changing medical interpretation of the relationship between the polio virus and society. In 1971, when his book was published, falling rates of immunisation in western countries had not yet become a pressing concern, and Post Polio Syndrome had yet to be identified. And while there are ongoing possibilities for medical reinterpretation of this disease, there are similar possibilities for an evolving historical interpretation of the relationship between polio and human communities on a world wide basis.

Naomi Rogers offers a sophisticated social and cultural medical history of poliomyelitis that investigates the epidemic which occurred in New York in 1916, five years before FDR became a polio survivor.¹² Rogers, who relies on Saul Benison,¹³ is conversant with the scientific, medical and public health history of polio, investigates the social responses to the disease, and the social meanings given to it, but does not include detailed discussion of individual cases. The key point of her argument is that, prior to FDR, the image of polio in the United States of America -

...was associated with the poorest, dirtiest children, not affluent adults in the prime of life, and with immigrants in

¹² Rogers, N. (1992). *Dirt and Disease: polio before FDR*, Rutgers University Press: New Brunswick, NJ.

¹³ Saul Saul Benison, also a participant observer in the medical process, who has written a number of works which include "The History of Polio Research in the United States: Appraisals and Lessons", in Gerald Holton, (ed), (1972). *The Twentieth Century Sciences: Studies in the Biography of Ideas*, New York: WW Norton, and "Poliomyelitis and the Rockefeller Institute: Social Effects and Institutional Response", *Journal of History of Medicine and Allied Sciences*, (1974). Vol. 29, pp.74-5.

slums, not Yankees from long established families.¹⁴

The social meaning of polio's association with the first set of images, and the shift to the second set of associations is central to her argument. She also draws attention to the complexities and ironies of polio history which she shows are fundamental to understanding the disease.

Rogers argues that the ideology of germ theory, which regained popularity from the 1890s, did not limit infectious diseases to divisions of race or class: germs affected the poor, the wealthy, ethnic minorities and the middle-class majority alike. Nineteenth century understandings which linked moral behaviour and infection were challenged by this ideology, but laboratory researchers who relied on germ theory failed to solve the riddle of polio, while health officials and the general public shared the assumption that "infection depended on the class, ethnicity and personal habits of individuals".¹⁵ There were "tensions between old and new medical theories and practices,"¹⁶ the transition to the "new public health" based on germ theory was incomplete,¹⁷ and the efficacy of modern science was debated by experts and the public alike. Rogers shows how, faced with an epidemic, health officials and the general public continued to be interested in germ theory but found it less compelling than earlier theories of public health. She writes -

¹⁴ Rogers, N. (1992). *Dirt and Disease*, p.1.

¹⁵ Rogers, N. (1992). *Dirt and Disease*, p.29.

¹⁶ Rogers, N. (1992). *Dirt and Disease*, p.3.

¹⁷ Rogers, N. (1992). *Dirt and Disease*, p.32.

Officials sought to make germs as fearful as filth but, unlike garbage and overflowing sewers, germs were not readily visible.¹⁸

Unable to interpret or control polio the authorities, who maintained a lingering reliance on the filth theory, resorted to traditional practices which included the more visible methods of control - quarantine, fumigation and disinfection,¹⁹ which coincidentally furthered the social agenda of the New York health department.²⁰ A scapegoat was found, not in science, but in the slum dwelling immigrant families of New York. It was claimed that the socially irresponsible immigrants whose careless sanitary practices contrasted with official public health endeavours, and the practices of the more hygienic American middle-classes, resulted in the spread of polio. Health officials were sufficiently wedded to this view for emerging clinical evidence to be ignored or overlooked while the perceived perpetrators were stigmatised. When polio infections occurred in the well-to-do areas flies, the favourite target of public health officials, were identified as the agent of transmission of the disease, though this meant that they would have had to travel in only one direction. Rogers writes -

An anti-fly campaign that portrayed flies as carrying the disease from working-class to middle-class was especially powerful and successful.²¹

During the 1916 polio epidemic in New York the dirt and disease

¹⁸ Rogers, N. (1992). *Dirt and Disease*, p.16.

¹⁹ Rogers, N. (1992). *Dirt and Disease*, p.46.

²⁰ Rogers, N. (1992). *Dirt and Disease*, p.19.

²¹ Rogers, N. (1992). *Dirt and Disease*, p.5.

was given a social meaning in relation to polio which was readily supported and which did not change until after Franklin Delano Roosevelt, the adult scion of a white, wealthy, ruling family, became a polio survivor in 1921. Between 1930 and the 1950s his affliction and influence helped give polio a new social meaning as a different set of associations was born. Polio was removed from the slums to the middle-class, or to all classes; and from being the disease solely of children to one that also affected adults. A legacy of these associations is retained by those Americans who lived through this era -

...a smiling freckled girl on crutches on a March of Dimes can; swimming pools closed in the summer; a nurse leaning over a child in an iron lung; rows of children with arms outstretched waiting for their polio vaccine shot; and President Roosevelt seated by a radio microphone, crippled yet strong, America's first handicapped president who refused to allow the press to report his wheelchair, leg braces, or inability to walk.²²

One of the ironies of polio history is that the disease came to be associated with cleanliness rather than dirt;²³ with rural communities and suburbs rather than slum districts, though in 1916 American health officials and researchers did not interpret the evidence in this way. "Classless" germ theory did not dislodge belief in the link between dirt, disorder and disease, and the group that had the highest level of immunity through endemic exposure to the virus continued to be targeted, while those who were most

²² Rogers, N. (1992). *Dirt and Disease*, p.1.

²³ Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p.328. The editor notes - "Polio is the only epidemic disease (sexually transmitted diseases excepted) the incidence of which increased in Western countries in the twentieth century".

vulnerable were not thought to be at risk. The social significance of diagnosis is made clear when, in the manner of Sylvia Tesh,²⁴ Rogers asserts that -

...explanations of the workings of disease have underlying social and political ideologies, sometimes only made explicit in times of urgency, such as an epidemic. It continues to hold a powerful intellectual and practical appeal: it combines morality and science; it helps to distinguish rich from poor, native-born from immigrant, the ignorant and careless from the informed and responsible.²⁵

Rogers argues her case through five chapters that cover polio in the USA, 1900-1920, the new public health, the new science of disease, the public response to polio and the rise of epidemiology. She concludes with an Epilogue which lucidly summarises the developments in polio history from FDR to the present.

FDR's connection with polio has been fundamental to the history of the disease since 1921. His severe paralysis at age 39, with what had so far been considered a children's disease, was the ingredient which ultimately resulted in a change of perception about polio. FDR's own process of rehabilitation led him to dedicate his efforts to raise funds for research into the provision of a vaccine. He was a key figure in the formation of the National Foundation for Infantile Paralysis (NFIP) and the "March of the

²⁴ Tesh, S.N. (1988). *Hidden Arguments: political ideology and disease prevention policy*, Rutgers University Press, New Brunswick.

²⁵ Rogers, N. (1992). *Dirt and Disease*, p.7.

Dimes” which generated funding for research which eventually bore fruit in the Salk vaccine. Because of him polio in the twentieth century was characterised as an ‘American’ disease.

FDR emerged as the triumphant political and social figure of this era - and he did so by denying or covering over his paralysis from polio. At the same time the success of the American way of life in general, and the free enterprise system in particular, was underlined by the achievements of American science under the patronage generated by his interest.²⁶

In connection with the historiography of polio, and the projected image of people with disabilities, FDR’s role is ambiguous. Some believe his true greatness lay in the fact that he had polio, but the erection of the most recent memorial to him in Washington drew a crowd of protesters because it continued the deception and maintained the secrecy of his disability.²⁷ A bas-relief by Leonard Baskin depicts FDR standing alone without any external support, something he was unable to do,²⁸ while another figure has him sitting on a chair that is not obviously a wheel chair.²⁹

²⁶ Brandt, A.M. (1978). “Polio, Politics and Duplicity: ethical aspects in the development of Salk vaccine”, *International Journal of Health Services*, 8, p.265.

²⁷ Wilson, P. “Memorial Blind to FDR’s Greatness”, WA, 1-2 March 1997, p.12.

²⁸ Gallagher, H.G.(1994). *Splendid Deception*, pp.210- 212.

²⁹ *The Economist*, 26 April 1997, p.41.

Hugh Gallagher asserts that it has become customary for many biographers to continue the “splendid deception” FDR himself created in connection with his disability by giving it perfunctory treatment. Gallagher’s own view, born of personal experience as a polio survivor is -

A visible paralytic handicap affects every relationship, alters the attitudes of others, and challenges one’s self-esteem. It requires minute-by-minute monitoring and control to an extent quite unperceived and unimaginable by the able-bodied. This condition of being handicapped generates a range of emotions, whether expressed or not, that must be dealt with, not just at the outset, but continuing throughout the rest of the patient’s life.³⁰

Gallagher argues that FDR’s experience, and the discipline learned in seven years of rehabilitation, was fundamental to his success as the President of the United States of America because his suffering humanised him and made him more appealing to members of the public who were enduring the stringencies of Depression and War. And Gallagher presents FDR’s successes as having an essential connection with his status as a polio survivor whose iron will and rigorous self education, evident during seven years of

³⁰ Gallagher, H.G.(1994). *Splendid Deception*, pp.xi-xii.

rehabilitation, contributed many things to his Presidency of the USA. Others, including members of the Roosevelt family, dispute this interpretation of FDR's life.³¹ But, as the memorial to him testifies, there is no doubt that the able-bodied image he projected won out over his disabled image, and this is significant for the social history of polio. It is not that FDR hid the fact that he was a polio survivor - he maintained a high profile as president of the NFIP, aimed to make people as aware of polio as they were of TB, and his nickname "Dr Roosevelt", earned for his rehabilitative work at Warm Springs, was progressively changed to "Dr Depression" and "Dr Win The War". At the same time elaborate strategies were used to eliminate the image of his disability, something that would have been impossible in the TV age of live reporting. The media colluded with FDR to preserve and perpetuate the representation he cultivated of himself. Amongst the collection of over thirty thousand surviving photographs of FDR, only two picture him in a wheelchair. It is this that Gallagher sought to rectify when he selected one of them for the cover of his book, *FDR's Splendid Deception*.

³¹ Gould, T. (1995). *A Summer Plague*, Ch. 2. Gould follows Merritt B Low, MD, who argues that personality affects the disease.

Gallagher's history does not advance the understanding of polio as a disease but it contributes to the discussion concerning the social and personal responses to it current in America between 1920 and 1945. FDR defied his polio and his experience provides a paramount example of the will to overcome the physical results of paralysis, and the psychological impact of the belief that disabled people were morally and intellectually inferior. Gallagher's biography also provides ample material in connection with the effects of the disease on society. FDR, who is often quoted for his 1933 statement "we have nothing to fear but fear itself", came from a family which feared polio deeply and used its position of privilege and power to flee from New York during the 1916 epidemic.³²

FDR is also an example, perhaps the example, of the culture of denial that accompanied polio, at the public, personal, and particularly the emotional level. Gallagher indicates that there is no evidence that FDR ever spoke of the deep feelings his affliction must have aroused in him, and that his handicapped condition

³² Gallagher, H.G. (1994). *Splendid Deception*, p.13.

was never spoken about in the family,³³ even though every member's life was affected by the special arrangements made for coping with it, and the experience forged the type of relationship he had with his wife Eleanor for the rest of his life. At a time when there was no concept of "mainstreaming" for disabled people FDR succeeded in convincing everyone that the effects of polio were unimportant and need not be taken into consideration on moral, intellectual or physical grounds. He demonstrated that paralysis did not prevent him succeeding in high office or taking his place on the world stage during the Second World War.

FDR succeeded for a quarter of a century but, as the history of his last years reveals, his defiance came at a price. PPS had not been identified in 1945 and we cannot attribute his end to its effects, although recently some have attempted to suggest there was a link.³⁴ The crushing pressure of his combined role as President and Commander in Chief during the Second World War was enough to wear down the fittest of all. In the last stages of the

³³ Gallagher, H.G. (1994). *Splendid Deception*, p.15. "There is no record of his ever having discussed it with *anyone*". Original emphasis.

³⁴ Sass, E.J. *Polio's Legacy*, p.15. Sass follows Speier, J.L., Owen, R.R., Knapp, M., and Canine, J.K., (1987). Occurrence of post-polio sequelae in an epidemic population. In Halstead, L.S. and Weichers, D.D. (eds) *Research and the clinical aspects of poliomyelitis*, White Plains, March of the Dimes, pp.39-48.

War Winston Churchill was so fatigued he had himself carried up and down stairs.³⁵ FDR found his physical strength undermined when he most needed it and while Eleanor wrote, cruelly, that he had succumbed to “invalidism”, and Gallagher argues that in the end polio beat him,³⁶ any weakness in FDR need not be seen as unusual, even if PPS could be shown to be present. Despite his determination, in the long run FDR the polio survivor was conquered by hard work.

John Rowan Wilson was one of the first to investigate the history of the search for a suitable polio vaccine,³⁷ which he characterises as a “race” between different individuals and organisations that was fraught by competing social and political agendas. Wilson focusses on the role of key individuals and organisations in the USA, notably Basil O’Connor, Jonas Salk, Albert Sabin, the NFIP, the Press and the Government. He is critical of the the laissez-faire attitude of the US Government in connection with public health policies and the role played by the press in offering

³⁵ Gallagher, H.G. (1994). *Splendid Deception*, p.177. In the last stages of the War Winston Churchill was so fatigued he had himself carried up and down stairs.

³⁶ Gallagher, H.G. (1994). *Splendid Deception*, p.191.

³⁷ Wilson, J.R. (1963). *Margin of Safety:the story of poliomyelitis vaccine*, Collins: London.

sensationalistic reporting of “breakthroughs” in the polio war.³⁸

Wilson, who writes in a journalistic style, is particularly critical of the concentration of so much power and influence in the hands of the determined O'Connor, and of the way in which the NFIP “became a law unto itself”. O'Connor’s promotional and fund raising agendas competed with the research needs of the scientists in an unhealthy and dangerous way and the NFIP became “trapped within its own image of dynamic optimism”.³⁹ Wilson argues that from this position it could not afford to be slow, unpopular or unsuccessful, but the interests of public safety demanded that scientists engaged in time-consuming vaccine research were thorough and cautious. The weakness of Government controls over experimental vaccine trials conducted in the USA in 1954 contributed to the “Cutter”⁴⁰ incident in which, Wilson argues, the NFIP with government connivance assumed a role that was inappropriate for a private body. It directed national policies and priorities in polio research and, when O'Connor placed an order for nine million dollars worth of polio vaccine, took a step that was

³⁸ Wilson, J.R. (1963). *Margin of Safety*, p.54.

³⁹ Wilson, J.R. (1963). *Margin of Safety*, p.85.

⁴⁰ Wilson, J.R. (1963). *Margin of Safety*, p.93. Because the trials were experimental, the vaccine did not have to be licensed by the Government Laboratory of Biologics Control. Once the trials were conducted, all vaccine had to be licensed; too late for some.

more correctly a Government responsibility.⁴¹

A later interpretation of these events can be found in an article by Allan M. Brandt which investigates the history of the development of Salk vaccine in the light of a number of ethical decisions that were made in the process, particularly in connection with preliminary tests using human subjects, and the mass trial itself.⁴² Brandt highlights three key areas of ethical concern: the need to “define the risk-benefit” and the terms of consent in the use of human subjects, whether mentally defective children (who were used in early trials), or healthy “parent volunteered youngsters”; the fact that in a competitive situation the “obligation of pharmaceutical companies to manufacture safe products cannot be assumed”; and the necessity for government to “provide a central direction” in the quest for scientific advance.⁴³

Other more recent examinations of the development of polio

⁴¹ Wilson, J.R. (1963). *Margin of Safety*, p.64.

⁴² Brandt, A.M. (1978). Polio, Politics and Duplicity: ethical aspects in the development of Salk vaccine, *International Journal of Health Services*, 8. The use of intellectually disabled children is discussed in Wilson, *Margin of Safety*, pp.148-9, and 153-55.

⁴³ Brandt, A.M. (1978). Polio, Politics and Duplicity, p.268.

vaccine have been offered by Aaron Klein,⁴⁴ Richard Carter,⁴⁵ and Jane S. Smith.⁴⁶ Smith's reflection of her research experience is that "a buried fear is hard to resurrect".⁴⁷ The quest for a polio vaccine was, she says "one of those vast public events that everyone remembers, but no-one wants to know about".⁴⁸ Her own experience as a Polio Pioneer, a volunteer in the Salk trials, led her to research the memory gap that has developed concerning polio. She writes a new history of the discovery of the vaccine from the point of view of a participant observer and beneficiary in the immunisation process. Hers is a lucid account that commences with FDR and recounts the development of and introduction of Salk vaccine. Smith tends to support the "hero of our times" view of Jonas Salk and sees him as having helped create, post 1955, the "healthiest generation in history", a group of people who know nothing of epidemic diseases.⁴⁹

44 Klein, A. (1972). *Trial by Fury: The Polio Vaccine Controversy*, New York: Charles Scribners and Sons.

45 Carter, R. (1966). *Breakthrough: the saga of Jonas Salk*, Trident Press: New York.

46 Smith, J.S. (1990). *Patenting the Sun: polio and the Salk vaccine*, New York: William Morrow and Co.

47 Smith, J.S. (1990). *Patenting the Sun*, p.19.

48 Smith, J.S. (1990). *Patenting the Sun*, p.24.

49 Smith, J.S. (1990). *Patenting the Sun*, p.390.

A Summer Plague, by journalist, editor and author Tony Gould

reflects in its title something of the negative representation of polio common during the era of the epidemics.⁵⁰ Gould's narrative is not as technical as Paul's scientific and medical history, but it surpasses it in its endeavour to weave together the several strands to polio history. He writes -

The history of epidemic poliomyelitis has several aspects - scientific, clinical, political and experiential - and my aim, in the first half of this book has been to weave together these various strands, which have in the past been treated separately, if at all.⁵¹

In taking an integrative approach, his particular concern is that in their readiness to record the scientific and political aspects of this history, a number of historians have completely or largely side-stepped the experience of polio survivors. Gould also acknowledges the predominance of American influence in this history, the practice of using of military metaphor, and celebrated the success of science when he writes -

The 'conquest of polio' was an American - perhaps the

⁵⁰ See also Ruddy, C. J. (1996). *Do Something!... Do Anything! Poliomyelitis in Canada 1927-1962*, and Killalea, A. (1995). *The Great Scourge*.

⁵¹ Gould, T. (1995). *A Summer Plague*. p.xiii.

American - success story for the Fifties (the decade of conformism and the Cold War) and Salk, the bespectacled doctor in a white coat holding a test tube up to the light, became an instant celebrity.⁵²

Gould offsets the American influence by making use of British source material, and in this way provides another level of integration. His narrative is made up of two parts; the first is dedicated to the history of polio and the polio epidemics, the second to the history of polio survivors. Gould does not focus primarily on one epidemic, as does Naomi Rogers, nor on one figure, as does Hugh Gallagher. He gives "added resonance" by frequent use of the oral testimony of polio survivors, and material that has not been included by other authors. He has produced a work which is not of the technical stature of John Paul's book, nor as rich in its analysis as *Dirt and Disease*, yet is comprehensive, readable, and gives more space to the recording of personal experience. Also a participant observer Gould survived polio in 1959 and, though not at this stage affected by it himself, was roused to write this book when the impact of PPS began to make itself felt. Gould's personal experience reflects the relationship

⁵² Gould, T. (1995). *A Summer Plague*. p.xii.

between polio and society that many knew in the 1950s, and the relationship that has emerged since the advent of PPS. He writes -

When I set out to write this book I knew very little about paralytic polio, even though I'd had it myself... what I discovered in the process of researching and writing this book was that I, too, had been so busy 'mainstreaming' and 'denying' my disability over the years that I had simultaneously both overvalued and undervalued it. I had overvalued it in the sense of regarding my experience of polio as somehow unique... and undervalued it by not allowing that it had made any substantial difference to my way of life and thinking... I don't any longer... however impressive a recovery you make, you don't 'conquer' or 'overcome' polio in any meaningful sense, you merely adapt to the limitations it imposes and - if you're fortunate - discover resources within yourself you might not otherwise have found.⁵³

Gould himself was subject to the cult of denial that surrounded polio - he treated it as something he 'had' - did not learn anything more about it, and invested effort in 'mainstreaming' himself. The insight that you don't 'conquer' or 'overcome' polio is an understanding that did not develop until the 1980s and 1990s, in the wake of PPS. Gould, who from the start located himself in this history, came to see the need to relocate himself in a similar, but more enlightened place. He believes there are advantages in being

⁵³ Gould, T. (1995). *A Summer Plague*. pp.xv-xvi.

a polio survivor if it is possible to see past the old habits of 'denial' and the will to 'overcome' and live a life in which the effects of polio are understood and properly integrated into the personal and social context.

In his PhD thesis, a narrative history of polio in Canada 1927-1962, Christopher J. Ruddy has sought to integrate the Canadian experience of the disease within current historiography and show how the American "scientific and publicity war on polio" influenced the response, particularly of the government, north of the border.⁵⁴ Ruddy asserts that Canada was harder hit by polio than the USA⁵⁵ and as the impact of the epidemics was felt there -

Pressures mounted on physicians, scientists, voluntary health agencies and governments to do something, anything, to minimize polio's high personal and financial costs.⁵⁶

"Do something, do anything" becomes Ruddy's motif to encapsulate the Canadian struggle with polio.

⁵⁴ Ruddy, C. J. (1995). *Do something! Do Anything! Poliomyelitis in Canada 1927-1962*, Unpublished doctoral dissertation, University of Toronto, Canada, p.16.

⁵⁵ Ruddy, C.J. (1995). *Poliomyelitis in Canada 1927-1962*, p.10. Evidence is cited from a WHO report on the incidence of polio.

⁵⁶ Ruddy, C.J. (1995). *Poliomyelitis in Canada 1927-1962*, p.3.

Rutty argues that in the prosecution of the campaign against polio a fundamental difference between Canada and its southern neighbour was the degree of government intervention in public health matters that occurred. This response, which grew aggressively and strongly between 1927 and 1953, the worst of the Canadian polio era -

...was built upon a distinctive tradition of close institutional and personal links between leaders in local, provincial, and federal health departments, the medical profession, and public health education, research and the centralised and non-commercial production of preventative health products at the University of Toronto's Connaught Medical Research Laboratories and the intimately associated School of Hygiene.⁵⁷

Despite the advantage of these "close institutional and personal links" Canadian progress in the war against the polio virus was as slow as in other parts of the world. The difference was that the Canadian polio campaign was not plagued by the unfortunate consequences of competition between pharmaceutical manufacturers, as in the USA. The reason for this was that the

⁵⁷ Rutty, C.J. (1995). *Poliomyelitis in Canada 1927-1962*, p.4.

University of Toronto based Connaught Medical Research Laboratories, which had the capacity to conduct research and produce vaccine, was the national serum institute for the government. In Australia a similar role was played by the Commonwealth Serum Laboratories (CSL). Connaught received funding from the NFIP to conduct polio research and a vaccine trial. The facilities of Connaught were a significant tool for the Canadian government which, in response to a rising expectation of greater federal involvement in public health, used them to wage war against polio and other diseases. Connaught was integral to the Canadian public health system in which it “facilitated and reinforced strong national public health links”,⁵⁸ through links with key leaders at provincial and federal levels. During the polio campaign the Canadian government was able to impose national standards for the production, distribution and evaluation of polio vaccine.

Compared with the United States of America the governments of Canada and Australia appear to have exercised a higher level of centralised control in matters of public health. This was possible

⁵⁸ Ruddy, C.J. (1995). *Poliomyelitis in Canada 1927-1962*, p.4.

because of an openness to a greater level of government intervention in public life, something which strengthened during the Second World War. During the campaign against polio there was an advantage in having uniform decision making with respect to the manufacture and distribution of polio vaccine.

A collection of first hand stories of polio survivors who live in New Zealand is available.⁵⁹ And Jean C Ross, has written a narrative social history of polio in New Zealand from 1914 to 1961, with a post-script concerning PPS.⁶⁰ Ross's research provides valuable material for contextualising the history of polio in Australia. She charts the changes in the understanding of the disease, the shifts in public health administration that resulted, and the reaction of the public to these developments. Ross concludes that the changes, which sometimes amounted to a complete about face in public health policy, were accepted by a bewildered public, which eventually had its fears calmed concerning the disease and the disabled survivors it created. As a result of developments during

⁵⁹ Butterworth, K.P. (ed.), (1994). *Mind over Muscle: surviving polio in New Zealand*, Palmerston North: the Dunmore Press Ltd.

⁶⁰ Ross, Jean C. (1993). *A History of Polio in New Zealand*, unpublished MA thesis, University of Canterbury.

these years health services in general were improved while New Zealand polio patients were offered free treatment. Ross argues that radical changes in the management of paralysis patients, and a greater use of physiotherapy techniques, were the result a high level of acceptance of Sister Kenny's methods.⁶¹

An outline of the early history of poliomyelitis in Australia is available in J.H.L. Cumpston's volume, edited by M.J. Lewis, (1989). *Health and Disease in Australia: a history*, Canberra: Australian Government Printing Service. Cumpston's book, written in 1928 during the first phase of his distinguished career as Director-General of Health for the Commonwealth of Australia, was not published until Lewis undertook the editing of it sixty years later. Under the heading "Anterior Poliomyelitis" Cumpston states that the first recorded incidence of polio in Australia was in 1895,⁶² and that up to 1914 there was no consistent recording of further incidence. Cases of Landry's paralysis, a disease that may have been confused with polio, were not uncommon during the 1880s. References to early outbreaks are indicated, and useful

⁶¹ Ross, J. C. (1993). *A History of Polio in New Zealand*, p.102.

⁶² Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia: a history*: Canberra: Commonwealth Government Printer, p.326.

tables are given which record the incidence of polio in all states, 1911-1926, and the seasonal distribution of cases.

Frank Fenner's history of microbiology in Australia briefly records the Australian medical response to the polio virus since 1930, along with accounts of more recent developments.⁶³ Details are also given of the key people and institutions that were engaged in polio research and the production of vaccine in Australia, including Dr P.L. Bazeley, Dr (later Sir) F.M. Burnet, the Commonwealth Serum Laboratories, the Walter and Eliza Hall Institute, Melbourne, the John Curtin School of Medical Research, Canberra, and the Fairfield Hospital, Melbourne.

The Commonwealth Serum Laboratories played a significant part in the Australian response to polio. Its history by A.H. Brogan,⁶⁴ dedicates a chapter specifically to the details of polio vaccine development in Australia.⁶⁵ Brogan's history is based on a variety of sources as well as medical and institutional archives. His work

⁶³ Fenner, F. (ed.), (1990). *History of Microbiology in Australia*, Curtin: Brolga Press, pp.378-9, 504-5.

⁶⁴ Brogan, A.H. (1990). *Committed to Saving Lives: a history of the Commonwealth Serum Laboratories*, South Yarra: Hyland House.

⁶⁵ Brogan, A.H. (1990). *Committed to Saving Lives*, Ch 12. Poliomyelitis Vaccine: the last major triumph?

provides technical information and gives an impression of the internal politics of the CSL, which are a significant sub-text to the polio story in Australia, and the type of interstate rivalry that occurred over the introduction of polio vaccine.⁶⁶

Brogan's chapter on polio vaccine is followed by another devoted to Dr P.L. (Val) Bazeley. In the late 1940s Bazeley achieved acclaim for his work on the development of penicillin and, in October 1952, left to join Jonas Salk at the University of Pittsburgh.⁶⁷ Somewhat a celebrity, Bazeley returned to Australia in 1955 to supervise the manufacture of polio vaccine at the CSL. He arrived just before news of the Cutter incident broke. Despite the setback, Bazeley's expertise and demanding style of leadership enabled the project to go ahead and between 1956 and 1960 the CSL produced 17,670,000 doses of Salk vaccine.⁶⁸ Problems developed, during 1960-61, over the safety and supply of Salk and, after prolonged debate, Sabin vaccine was introduced in 1966. A controversial figure who ultimately did not fit the "public service mould" of the CSL, Bazeley eventually left Australia to work in America.

⁶⁶ Brogan, A.H. (1990). *Committed to Saving Lives*, p.116.

⁶⁷ Brogan, A.H. (1990). *Committed to Saving Lives*, p.115.

⁶⁸ Brogan, A.H. (1990). *Committed to Saving Lives*, p.122.

The historical atlas produced as part of the Bicentennial Australian history project contains a small entry on polio⁶⁹ which does more to suggest that further work needs to be done than provide the reader with a comprehensive grasp of polio in Australia the twentieth century. A brief historical outline of the polio incidence in Australia from the early 1900s is supported by charts, serial spot maps, and photographs, and brief mention is made of the work of Sister Kenny. Epidemics in South Australia (1947-48) and Western Australia (1948 and 1954) are analysed briefly, but no mention is made of the 1956 epidemic in Western Australia, or the major epidemic that occurred in South Australia between 1949 and 1951.

Investigations of the work of Sister Elizabeth Kenny (1880-1952) provide another source of polio historiography in Australia.⁷⁰ Apart from her own books and pamphlets,⁷¹ there is a growing body of published and unpublished material available which explores different aspects of her part in the polio story.⁷² John

⁶⁹ Gilbert, A.D. and Inglis, K.S. (general eds.), (1987). *Australians: a historical atlas*, Broadway, NSW: Fairfax, Syme and Weldon Associates, pp.172-173.

⁷⁰ A discussion of Sister Kenny's work is found below at p.188ff

⁷¹ Kenny, E. (1955). *My Battle and My victory: history of the discovery of poliomyelitis as a systemic disease*, London: Robert Hale Limited, and Kenny, E. and Ostenson, M. (1943/1980). *And They Shall Walk*, New York: Arno Press. A full bibliography of sources related to Sister Kenny can be found in Wilson, J.R. (1995). *Through Kenny's Eyes: an exploration of Sister Elizabeth Kenny's views about Nursing*, Royal College of Nursing: Townsville Regional Group, especially Appendices D,E,F,H.

⁷² Unpublished works which include material on Sister Kenny and polio include Martyr, P. (1994). *The Professional Development of Rehabilitation in Australia, 1870-1981*, University of Western Australia: PhD Thesis, History, see especially Chapter 5. See also Martyr, P. (1997). "A Small Price to Pay For Peace: the Elizabeth Kenny Controversy Re-examined", *Australian Historical Studies*, Volume 28, Number 108, Melbourne, pp.47-65.

Robert Wilson⁷³ began his research to explore “the discourse generated by and about” Sister Kenny. His purpose was to “uncover some of the ideas, attitudes and beliefs about nursing that helped influence Sister Kenny’s extraordinary career”.⁷⁴ Coincidentally he provides valuable historical background in connection with Sister Kenny whose career suffered both from professional ostracism in Australia, and the same historical silence that has attended the history of polio. Sister Kenny did not visit Western Australia and was working overseas by the time the first major epidemic struck in 1948. Some of her rehabilitation methods, which were introduced to the state by the Orthopaedic Surgeon R. D. McKellar Hall, raised the ire of Dame Jean Macnamara who in 1948 conducted an investigation of on polio rehabilitation in W.A. on behalf of the Public Health Department.⁷⁵

An important early study of polio in Melbourne was produced in response to the severe epidemic that occurred in Victorian during 1937-38. Hilda W. Bull, a Medical Officer of the Victorian Department of Health, conducted clinical and epidemiological research to produce a report, later published by Melbourne City Council.⁷⁶ Apart from the medical results reported, many of its

⁷³ Wilson, J.R. (1995). *Through Kenny’s Eyes: an exploration of Sister Elizabeth Kenny’s views about Nursing*, Royal College of Nursing: Townsville Regional Group

⁷⁴ Wilson, J.R. (1995). *Through Kenny’s Eyes*, p.vii.

⁷⁵ McKellar Hall, R.D. (1983). *Reflections*, p.47. See Chapter 4 below.

⁷⁶ Bull, H. M. (1939). *Poliomyelitis in the City of Melbourne*, Melbourne City Council.

conclusions shed insight into the social context of the epidemic.

The epidemic, which occurred at a time when Victoria was relatively free from other diseases, began during a cold, dry winter, challenging the theory of the 'summer plague'. Both factors were surprising, though not without precedent. New Zealand, which recorded 656 cases of polio in 1936-37, was seen as the source of the infection Victoria.⁷⁷ An improbable conclusion⁷⁸ but one that was allowed to stand at the time and which continued to be used between the two countries and, as we shall see, between the Australian states. Data from earlier epidemics in Victoria shows a higher incidence in the slums.⁷⁹ Bull challenged the concept that children from the upper-classes were most vulnerable to polio and argued that in Melbourne, as had also been found in Canada -

The inner suburbs, containing a large proportion of people living under conditions of overcrowding and economic stress actually had the highest incidence.⁸⁰

⁷⁷ Bull, H. M. (1939). *Poliomyelitis in the City of Melbourne*, p.7.

⁷⁸ Ross, Jean C. (1993). *Polio in New Zealand*, p.54. When in February 1938 the *Maunganui* arrived from Australia at Invercargill, it carried the body of a boy who died of polio. Normal quarantine procedures had been observed, but it was charged that polio was being brought to NZ from Australia.

⁷⁹ Poliomyelitis in Melbourne, *Medical Journal of Australia*, (1940). 1, 23, June 8, pp.809-812, *MJA*, (1918). Scientific, 1, 14, April 6, pp.292-294, F.B. Smith, (1990). 'The Victorian Poliomyelitis epidemic 1937-1938', pp.871-2.

⁸⁰ Bull, H.M. (1939). *Poliomyelitis in the City of Melbourne*, p.30.

All but four per cent of those infected during this epidemic were under fourteen years of age. It was notable that a high proportion of cases were traceable through direct contact to either an abortive or paralytic case of polio. The City responded to the distress polio caused, especially to low income to families. Breadwinners were often affected by informal social sanctions, even though quarantine restrictions were not applied, while the expenses of after-care were an added drain. Various forms of relief were arranged to assist families affected by these and other concerns.⁸¹ Due to the severity of the epidemic, for the first time the administration closed schools and classes where infection occurred, though no consensus could be reached on the efficacy of this policy.⁸² F.B. Smith has offered a more detailed historical interpretation of this epidemic which places the clinical and epidemiological data in a political light.⁸³ In relation to the science and politics connected with gaining a deeper understanding of the transmission of polio, and the treatment given to Sister

⁸¹ Bull, H.M. (1939). *Poliomyelitis in the City of Melbourne*, p.31.

⁸² Bull, H.M. (1939). *Poliomyelitis in the City of Melbourne*, p.39.

⁸³ Smith, F.B. (1990). The Victorian Poliomyelitis epidemic 1937-1938, in Caldwell, J. (ed), (Vol. II, Ch. 53). *What we Know about Health Transition: the cultural, social and behavioural determinates of health*, The Proceedings of an International Workshop, May 1989, Canberra, p.866-881.

Elizabeth Kenny, Smith argues that -

...neutral, objective epidemiology and therapeutic regimes may sometimes be, as they were in Australia during the polio years of the 1930s, 1940s and early 1950s, the continuance of politics by other means.⁸⁴

Smith shows that during the 1930s, and in connection with this epidemic in particular, Australian researchers, who came close to understanding the correct means of polio virus transmission, were prevented from making the breakthrough by lack of resources, their subordination to orthodox American views, and a failure to pursue the logical consequences of the data on hand.⁸⁵ It was the unusual circumstances of the 1954 royal tour to Western Australia that gave Dudley Snow the opportunity to prove the faecal contamination theory.⁸⁶

The Great Scourge: the Tasmanian Infantile Paralysis Epidemic 1937-38, by Anne Killalea, is based on her Master of Humanities thesis of the same title.⁸⁷ Killalea has written a narrative social history

⁸⁴ Smith, F.B. (1990). in Caldwell, J. (ed), (Vol. II, Ch. 53), p.879.

⁸⁵ Smith, F.B. (1990). in Caldwell, J. (ed), (Vol. II, Ch. 53). p.873.

⁸⁶ Snow, D.J.R. (1955). Crowds and Poliomyelitis: with special reference to a recent epidemic in Western Australia, *MJA*, Vol. I, No. 1. See above, Chapter 2.

⁸⁷ Killalea, A. (1992). *The Great Scourge: the Tasmanian Infantile Paralysis Epidemic 1937-1938*, Master of Humanities Thesis, University of Tasmania.

of one of the worst epidemics ever recorded in the world. The polio virus was peculiarly infective in Tasmania during this epidemic, and produced case rate of 421 per 100,000, more than three times that recorded during the same period in Victoria, where an epidemic occurred concurrently, and more than seven times that of any epidemic in Western Australia.⁸⁸ Killalea shows that, despite magnitude of the Tasmanian epidemic, and a plentiful supply of historical and personal material, the epidemic attracted no mainland attention at the time, and little more since. Her theme illuminates the sort of relationship that sometimes prevails between the remote Australian states and their more populous neighbours.

The Great Scourge explores the response to the epidemic, the experience of those affected by it, and the aftermath. Killalea, utilises a wide range of source material, medical, historical, photographic and personal. She writes with a view to seeing how “personal accounts affect historical understandings” and it is through this perspective that she illuminates the impact this

⁸⁸ Killalea, A. (1995). *The Great Scourge*, p.136. The worst recorded epidemic occurred in Iceland in 1924 when the rate of infection was 480 per 100,000.

epidemic had on the small population of Tasmania. No extensive published research is so far available for other Australian states but unpublished work is available for South Australia and New South Wales.⁸⁹

The aim of this chapter has been to provide an international frame of reference for this thesis through a review of key items of literature related to the historiography of poliomyelitis. John Paul's history has disclosed the long quest to understand the virus and create a suitable vaccine. John Rowan Wilson has shown what difficulties arose in that search, due to lack of centralised control of the manufacture of vaccine in America. Ruddy's work on Canada and the Connaught Laboratories shows an alternative response to this difficulty which more closely matches the Australian situation, as demonstrated by Brogan in his work on the CSL and Bazeley's contribution. The medical history by Cumpston and Fenner provides basic information related to the

⁸⁹ Buxton, A.J.C. (1977). *Poliomyelitis in South Australia 1937-1956*, unpublished honours thesis, University of Adelaide, is an administrative history which examines the preparedness of South Australia for the onslaught of the polio virus, and the ways in which the government and the community responded to the epidemics. Cecilie Bearup, (1991), a retired occupational therapist who studied at Roosevelt's Warm Springs, USA, wrote her honours thesis, *The Outcomes of the Poliomyelitis Epidemics in South Australia 1912-1960, with the Late Effects of Polio, or Post-Polio Syndrome*, in view. It is a social history which examines the long-term effects of polio on those who were affected by the virus. Wendy Greenland, (1990). *Infantile Paralysis (Poliomyelitis) in New South Wales, 1930-1940: a study of perceptions and reactions*, honours thesis, University of New South Wales, analyses why polio was perceived by the medical profession, the public and social commentators of all kinds to be the most feared of all diseases. Greenland argues that the fear was based on ignorance, the lack of a cure, and the horror of paralysis. Outside the work on Sister Kenny, there is no historical research I am aware of that has been attempted in connection with the epidemics of polio in Queensland.

Australian situation, but it is not extensive in scope. The social meaning of polio in the American and British contexts is brought out in different ways by Rogers, Gallagher, Gould and Jane S Smith. The classless nature of the disease, the fear and denial that attended its presence in the community, the centrality of FDR to the process of finding a cure, his role in the denial that characterises the history of polio, and the making of polio heroes, are illustrated by these authors. And as indicated above, Australian and New Zealand perspectives are offered by Jean Ross (New Zealand), F.B. Smith and Hilda Bull (Victoria), Anne Killalea (Tasmania) and John Robert Wilson (Sister Kenny).

The themes explored in the literature reviewed here are pertinent to the West Australian experience. The long quest for a vaccine, marked by confusion over the nature of the disease and the consequences for implementing control measures, and the conflict over health control in industrial democracies all feature in the story of polio in Western Australia. And the fear and denial that polio aroused were felt just as strongly here. The published history of polio in Western Australia, and the sources used for this thesis, have been outlined in Chapter 1 above. The following chapters discuss the history of polio in Western Australia in detail.

CHAPTER 4: A fortunate experience: polio in Western Australia 1913-1947.

Western Australia has been extremely fortunate in its experience of this disease by comparison with other States. 1

Polio in WA prior to 1913

Western Australia was seriously affected by polio for eighteen years, from 1938 to 1956, a much shorter period than was suffered in other states. Serious incidence of polio was recorded in South Australia between 1897 and 1963,² in New South Wales, Queensland and Victoria between 1903 and 1963, and in Tasmania between 1930 and 1960.³ The low incidence of polio in Western Australia between 1913, when the Public Health Department commenced keeping records, and 1938, when the first major outbreak occurred, was the consistent pattern for the state.

There is no consolidated source of information on the incidence of polio in Western Australia prior to 1913,⁴ but hospital Admission and Discharge registers which are available for Perth Public Hospital (later Royal Perth Hospital, RPH) indicate the diagnosis for each patient. Determining the number of polio cases admitted

¹ *Public Health 1939-44*, (1944). Report, p.6. BL, 614.09 WES.

² Buxton, A.J.G. (1977). *Polio myelitis*, p.82.

³ Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p. 326, and Figure 3.

⁴ A table of the reported polio incidence in all states of Australia 1911-1926 [Figure 4] can be found in Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p. 326. The only entry for WA prior to 1916 records eight cases in 1913. Cumpston's figures vary a little from those found in Figure 4 and referred to in the letter CPH to S. Dove, 26 April 1935, BL, ACC 1003, 120/4,626,1925, p.128.

to hospital prior to 1900, or even 1910, is complicated by two factors. Diagnoses were recorded in a column that could contain only a few words, and a variety of descriptions were used for what could possibly have been Infantile Paralysis. It is possible that the diagnosis of polio was not yet sufficiently defined for doctors to use it, and there is evidence that, in Western Australia, polio was not considered a threat to the community. For example between 1899 and 1909 Acute Anterior Poliomyelitis, or Infantile Paralysis, was not included on the list of diseases that were considered to be dangerous, malignant, infectious or contagious.⁵

Hospital registers reveal that between 1876 and 1894 there were no cases of children admitted to Perth Public Hospital (PPH) with poliomyelitis. During this period approximately thirty patients were admitted with "paralysis" which was regarded as a "nervous disease" a category that included apoplexy, tetanus, hemiplegia and chorea.⁶ Of this number the youngest was a fifteen year old male admitted on 18 October 1876, who was hospitalised for only five days. If he had polio it seems unlikely that his was a serious case. The remainder of those listed were aged between twenty four and seventy eight years of age and it seems unlikely that many, or any, of these were cases of poliomyelitis.

⁵ Definitions of Diseases, Central Board of Health, 27 June 1899, p.10; Letter, Undersecretary to Mayor of Coolgardie, 31 July 1909, p2, BL, ACC 1003, AN 120/4 595/45. *Malignant, Infectious or Contagious Diseases* were - Smallpox, Asiatic Cholera, Plague, Yellow Fever, Typhus Fever, Leprosy. The list *Dangerous Infectious Diseases* added to the above Scarlet Fever, Typhoid Fever, Diphtheria, Diphtheritic Group.

⁶ Admission and Discharge Registers, Perth Public Hospital, Book 1, 1876-1886; Book 2 1887-1897, Royal Perth Hospital Museum.

The first case of Anterior Poliomyelitis to be diagnosed and recorded as such was a thirty four year old male who was admitted to PPH in June 1895.⁷ It is not clear whether he had recently contracted polio, or whether he was admitted for after-care, but seventy four days later he was discharged in a "relieved" condition.

Between 1895 and 1912 sixteen cases of polio, including the one above, are listed in the hospital registers and of these twelve were children,⁸ and four were adults.⁹ The worst incidence occurred in 1904 when three children were admitted with polio. On their discharge the condition of twelve of these patients was described as "relieved", two as "unrelieved", and two as "status quo". During this period numerous cases of "paralysis" are listed along with "diphtheritic paralysis" or "post-diphtheric paralysis", "infantile atrophy", "bulbar paralysis" and "myelitis"- a description which is reserved for older patients. In 1904 a forty two year old male died of bulbar paralysis and respiratory failure,¹⁰ which is not described as polio related, but the link would seem plausible. And in 1905 a diagnosis of "febrile attack" is noted in a twelve year old female, which seems suspiciously like a non-paralytic polio infection.¹¹ If these hospital registers are any guide to the state-wide incidence of polio in Western Australia up to 1912, the disease affected individual lives but posed no threat to the community. An

⁷ Register, Book 2, 1887-1897, RPH; 1895, entry 226.

⁸ Nine were aged between eleven months and three years, the remaining three were five, six and nine years of age respectively.

⁹ Registers, Books 2-14, 1887-1912, RPH. Two adults were aged 34, one 42 and the other 60.

¹⁰ Register, Book 6, 1903-1905, RPH; 1904, entry 862.

¹¹ Register, Book 6, 1903-1905, RPH; 1904, entry 1321.

outbreak of polio was reported in Kalgoorlie in 1909, but there appears to be no corroborating evidence to support this claim.¹²

While polio may not have presented any danger to the Western Australian community at this time, other infectious diseases certainly did. The Central Board of Health (CBH, later the Public Health Department), established under the Health Act 1886-1911, had to manage outbreaks of influenza, leprosy, typhoid, diphtheria and small pox.¹³ The CBH circulated information to Local Boards of Health regarding the characteristics of infectious diseases and methods of controlling them.¹⁴ Local Boards, which were required to report any incidence of these diseases, in turn issued directions to the public concerning their responsibilities when infection occurred, and the treatment of infected persons.¹⁵ As a result of a smallpox epidemic in 1893 the Victoria Hospital, a small, primitive infectious diseases hospital was established in bushland west of the suburb of Subiaco.¹⁶

It was typhoid that most sorely tested the Central Board of Health's resources, as a result of the gold rushes of the 1890s. The rapid increase of population accompanied by poor living conditions

¹² Note, 5 February 1932, BL, ACC 1003, AN 120/4, 626/1925, p.48. "There was an epidemic in Kalgoorlie in 1909 but I cannot help you about those patients." The Kalgoorlie newspapers for 1908-9 gave no evidence of an outbreak.

¹³ Snow, D.J.R. (1981). *Progress*, pp.57-65.

¹⁴ Circular Letter, JHL Cumpston, Secretary, Central Board of Health to Secretary, Local board of Health, BL, ACC 1003, AN 120/4, 988/1910, p. 1.

¹⁵ Notice regarding Infectious Diseases, Guildford Municipality, Local Board of Health; Davyhurst-Mulwarrie Local Board of Health, Notice re Typhoid Fever, BL, ACC 1003, AN 120/4, 1619/1908, unnumbered pages.

¹⁶ Bolton, G.C. and Joske, P. (1982). *History of Royal Perth Hospital*, Perth, Royal Perth Hospital, p.57-58; Snow, D.J.R. (1981). *Progress*, p.62; Martyr, P. (1996). *A History of the Victoria Hospital (Infectious Diseases) to the Royal Perth (Rehabilitation) Hospital, 1893-1993*, unpublished manuscript: Perth.

led to an outbreak of typhoid fever which commenced in 1894. Hundreds of typhoid cases boosted admissions to the PPH,¹⁷ without accounting for the thousands from the gold fields who died before reaching hospital or were nursed locally. The mortality rate from typhoid rose from 73 in 1894 to 325 in 1895, and 400 in 1897 and 1898. A decade later in 1904, after the goldfields achieved a secure water supply, the number of annual cases declined to below three figures.¹⁸ For a decade the state grappled with typhoid and in the process had witnessed what Snow named "one of the most protracted and notorious epidemics in the history of public health".¹⁹

Polio in WA 1913-1947

Despite low incidence of polio in Western Australia up to 1912, the newly formed Public Health Department took the step of extending the list of notifiable diseases to include Acute Infantile Paralysis.²⁰ In doing so it noted that there had been epidemic outbreaks of polio in Australia, America, England and Europe. Yet it was to be 36 years before the state would face its first real test from polio. A maximum of nineteen cases were recorded in 1916 and 1925, followed by sixteen in 1940 and 1943, matched by zero in 1917 and

¹⁷ Register, Book 2, 1887-1897, RPH; total admissions rose from 812 in 1896 to 1534 in 1897, Bolton, G.C. and Joske, P. (1982). *RPH*, p.58. Between June 1896 and June 1898 there were 1387 typhoid admissions, of which 10% died.

¹⁸ Snow, D.J.R. (1981). *Progress*, p.160.

¹⁹ Snow, D.J.R. (1981). *Progress*, p.4. A full account of the "two fevers" is to be found in a fine social history, Whittington, V. (1988). *Gold and Typhoid: two fevers*, University of Western Australia Press, Nedlands.

²⁰ Memo CPH to Undersecretary, 7 May 1912, p.18; Order in Council, 28 May 1912, Proclamation 31 September 1912, p.21, BL, ACC 1003, AN, 120/4, 595/45.

1922.²¹ The worst incidence, forty eight cases, occurred in 1938 and was regarded by some as the first "epidemic" but it was really only an initial flurry of activity. Western Australia remained relatively free of the polio from 1913 to 1947, when an average of seven cases per year were recorded [Figure 5].²² In the corresponding period the low incidence of polio in Western Australia to 1947 is exceeded only by the Northern Territory and the Australian Capital Territory.²³

During the 1930s Tasmania, Victoria and New South Wales suffered severely from polio and from then on the disease claimed a significant place on the public health agendas of all Australia states. New South Wales had 240 cases in 1929, and 106 and 382 in 1931 and 1932 respectively. Victoria recorded 276 cases in 1931 and Queensland 284 in 1932. But by far the worst years were 1937 and 1938 when Victoria recorded 2176 cases, Tasmania 1006, New South Wales 757 cases, South Australia 389, and Queensland 281 [Figure 3].²⁴ Against this Western Australia's fifteen cases in 1937, followed by forty eight in 1938, hardly rated a mention even though it was the worst total so far. The most severe outbreaks of polio in Australia were still to come in the 1950s, when Western Australia also suffered significant epidemics.

Increased activity of the polio virus in Australia is paralleled in

²¹ CPH to S. Dove, 26 April 1935, BL, ACC 1003, 120/4,626,1925,p.128.

²² *Public Health 1948*, (1949). Appendix XV, p.6, BL, 614.09 WES.

²³ See Figure 3.

²⁴ *Commonwealth Year Book*, 1929-1966, see also Buxton, A.J.G. (1977). *Poliomyelitis*, p.84

New Zealand which had several polio epidemics in the period 1916 to 1956. In 1916 there were 1018 cases, 1925, 1,159 cases, and 1937, 816 cases. In 1946 and 1947 rates of polio infection were higher than normal and in 1948 another epidemic occurred, which extended into 1949, with 963 and 355 cases respectively. What must have seemed like an interminable epidemic occurred between 1952 and 1956 when, apart from a respite in 1954 when 43 cases occurred, the remaining years recorded totals of 890, 403, 703 and 897 respectively.²⁵ And in 1961, five years after immunisation commenced, there was a worrying increase to 214 cases, a feature shared with several states in Australia.

The remoteness of Western Australia may have some bearing on a pattern, discernible later, in which polio epidemics occurred after those in New Zealand and the eastern states.²⁶ There was no lack of vigilance on the part of the authorities, despite the delayed appearance of polio in Western Australia. Preparations were made at an early stage, even though health experts did not know how to predict the occurrence of an epidemic and were unsure what measures to adopt to prevent or control an outbreak. In 1916, when New York and New Zealand were experiencing severe epidemics, the Public Health Department noted the occurrence, advised its Local Government authorities accordingly and "requested their observance of the ordinary conditions of

²⁵ Ross, Jean C. (1993). *New Zealand*, Appendix 2, Table 1, pp.108-109.

²⁶ For example, in 1937-38, 1947-48 and 1952-54, see *Public Health 1948*, (1949), Appendix XV, p.58, BL, 614.09 WES; Ross, (1993). *New Zealand*, Appendix 4, p.114; Killalea, A. (1992). *The Great Scourge*, p.70. The first case of polio in the Tasmanian epidemic of 1937-38 occurred on 5 November 1937.

notification".²⁷ A year later the Town Clerk of Boulder, in response to a reported case of polio, wrote to the Commissioner seeking information.²⁸ In 1926, one year after the second epidemic in New Zealand, the Commissioner wrote to the doctor in the wheat-belt town of Bruce Rock expressing his concern that, of the dozen cases notified in the state that year, three had come from his district.²⁹ From this period onwards the Public Health Department was in contact with its corresponding bodies in other states to share and seek information concerning the threat posed by polio.³⁰

During the 1930s polio began to be discussed more widely in Western Australia. It is possible that this resulted from reports of epidemics in the eastern states, New Zealand, and other countries overseas. In 1932 the Commissioner received a letter written by a man who lived at the Old Men's Home in Claremont, who said -

I suffered from this disease when a child of three, and am now forty six years of age. If you think I could be of any use to you, I am willing to come forward at any time.³¹

²⁷ Circular Letter, CPH to LHA, 25 November 1916, BL, ACC 1003, AN 120/4, 626/1925, p.1.

²⁸ Town Clerk, Boulder to CPH, 11 October 1917, BL, ACC 1003, AN 120/4, 626/1925, p.3.

²⁹ CPH to Dr Bean, 27 May 1926, BL, ACC 1003, AN 120/4, 626/1925, p.21.

³⁰ For example, Department of Public Health, Hobart, to Public Health Department, WA, 31 April 1931, BL, ACC 1003, AN 120/4, 626/1925 p. 32. "I have to request you to be good enough to furnish me with the following data regarding Anterior Poliomyelitis in your State: 1) The number of cases reported since 1925. 2) What steps have been taken for treatment of early cases, and in the after-care of paralysed cases. 3) Who is responsible for the expenditure involved in so far as item (2) is concerned? 4) What steps, if any, are taken to provide for the teaching of children, and vocational training of adults? See also pages 36, 61 and 62 for further examples.

³¹ Letter to CPH, 18 February 1932, BL, ACC 1003, AN 120/4, 626/1925, p.84.

On the basis of his evidence he had polio in 1898. There is no evidence that he was in the state at that time of his infection but one reason he lived at the Old Men's Home, at age forty six, could have been that he suffered from serious paralysis. It is possible that he was a pensioner. At this time there were in the state eleven males and six females who had applied for pensions due to incapacitation from polio.³²

Early attempts to create a prophylactic using blood from polio infected people aroused public interest and there were others who joined the man above in offering themselves, or their blood for serum.³³ In 1937 one such donor wrote -

Some years ago I read that a serum to combat Infantile paralysis could be prepared from the blood of a person who had recovered from the disease. As it now seems to be prevalent in other parts of Australia I thought there might be a demand for such blood. I suffered from this disease in 1904 and although my left leg is practically useless am otherwise recovered. I would be prepared to give as much blood as I could spare if it is of any use to the Department.³⁴

Stocks of this type of serum were kept by the Public Health Department,³⁵ but it was of limited usefulness, it being "powerless to check the development of the disease".³⁶ Serum was usually

³² Undated List, BL ACC 1003, AN 120/4, 626/1925, p.58.

³³ Note, 10 February 1932, BL ACC 1003, AN 120/4, 626/1925, p.57.

³⁴ Letter HCP to CPH, 22 July 1937, BL, ACC 1003, AN 120/4, 626/1925, p.144.

³⁵ Telegram, Director General of Health, to CPH, 27 January 1932, p.36; Secretary, Central Board of Health Adelaide to CPH, 5 February 1932, p.44, BL, ACC 1003, AN 120/4, 1106/1933.

³⁶ Australian Archives, CRS 1928/1, 8012, Section 2. Zwar, D. (1984) *The Dame: the life and times of Dame Jean Macnamara, medial pioneer*, South Melbourne: Macmillan, pp. 18-20. F.M Burnet considered that after 1931 no one should have used serum, but Macnamara continued its use until 1937.

only applied when polio was diagnosed in an unparalysed patient, in the hope that paralysis would not develop. By then the patient's own body was producing antibodies and the serum added little further protection.

In the early 1930s the favoured understanding was that the polio virus gained entry through the nose and mouth,³⁷ by means of oral and nasal droplets.³⁸ Concentration on this point of entry led to the development, in the late 1930s, of nasal sprays - some of which were quite dangerous - and even a nasal peg.³⁹ Negative reaction to the use of these sprays, and difficulties in encouraging the use of the nasal peg eventually led to them being abandoned.

Personal contact was also suspect, and in particular its effect on children was feared. In 1932 the editor of the *Wagin Argus*, a country newspaper, published this warning -

DON'T KISS ME

Now that infantile paralysis has raised its ugly head in Australia, the "don't kiss me" campaign has started. Everybody seems to want to kiss every baby. No doubt the rosebud mouth is a tempting target, but it is a filthy and disgusting practice for the Twentieth Century, and rough on the baby! Every babe should wear a bib labelled "Don't Kiss Me!"⁴⁰

³⁷ Paul, J.R. (1971). *History*, p.246, Smith, F.B. (1990). in Caldwell, J. (ed.), (Vol. II, Ch. 53), p.867.

³⁸ Burnet, F.M. (1935) *MJA*, 21 September, Vol 2, No.12, p.390.

³⁹ Paul, J.R. (1971). *History*, p.316; Smith, F.B. (1990). in Caldwell, J. (ed), (Vol. II, Ch. 53), p.868; Greenland, W. (1990). *Infantile Paralysis*, p.20; Helms, K. (1937). "Poliomyelitis" *MJA*, 2,8, 21 August, pp.328-9; Buxton, A.J.G. (1977). *Poliomyelitis*, p.26. Despite lack of official endorsement of nasal sprays in South Australia, during 1937-38 the Hindmarsh Council promoted their use. In February 1938 the sprays were officially declared to be useless.

⁴⁰ *Wagin Argus*, 21 March, 1932, p.2.

This attitude was not confined to country people but was strongly promoted by the medical profession. In 1937, when the Victorian epidemic was gaining momentum, Dr Featonby, the head of the Department of Public Health, said that the key question in regard to polio infection was whether or not a person had developed immunity. He then warned -

...that kissing was medically a most dangerous custom. It was the commonest method of spreading the disease which found entrance through the nose and throat.⁴¹

A great deal of ignorance prevailed concerning polio, but such knowledge as was available was passed on to the public. In 1932, when the first case of polio known in the coastal town of Bunbury was notified, the following description of the disease accompanied the report in the *Wagtn Argus*.

The only symptoms are fever, irritability, headache, stiffness of the neck, vomiting, twitching of muscles, constipation and sometimes convulsions. These are generally followed in a few days (if death does not occur in the early stages) by paralysis of one or more limbs or groups of muscles. Some cases have been known without any paralysis whatever occurring.⁴²

Whether or not this information was provided by the Public Health Department, it would have done little to still the fear of polio that was developing in the community.

⁴¹ *Western Mail*, 12 August 1937, p.25.

⁴² *Argus*, 10 November 1932, p.2.

It is also evident that during the 1930s medical professionals in Western Australia, especially those who worked among children, were becoming alarmed at the prospect of a polio outbreak. In January 1932 the Honorary Staff at the Children's Hospital, (later known as Princess Margaret Hospital for Children), met to discuss the subject. It was unanimously agreed to convey their concern to the Commissioner in the following resolutions:

1. That in the opinion of the Honorary Staff and epidemic of Poliomyelitis is an alarming possibility, and that steps be taken immediately to prepare for such.
2. That the Honorary Staff is anxious to discover for its guidance what machinery exists for combatting such an epidemic.
3. That a copy of the above resolutions be sent to the Commissioner for Public Health, and that he be informed that the Honorary Staff would greatly appreciate the courtesy of his attendance at a further special meeting, to be held in the Board Room of the Children's Hospital on Wednesday 27th January at 8.30pm.⁴³

From the late 1920s serious consideration was also given to upgrading the poor facilities of the Infectious Diseases Branch of RPH.⁴⁴ A new facility was agreed upon and a conference of all Municipal Councils and Road Boards in the metropolitan area was called in 1933 to discuss the joint funding of the project. The

⁴³ R.D. McKellar Hall to CPH, 20 January 1932, BL, ACC 1003, AN 120/4, 626/1925, p.35.

⁴⁴ Bolton, G.C. and Joske, P. (1982). *RPH*, pp.121-124; RPH Board Minute 28 June 1928, p.4 and 26 July 1928, p.2. At one stage a new facility was planned, to be located in the outer suburb of Kwinana, and it was intended to offer polio after-care based on the principles of Sister Elizabeth Kenny. The proposal came to nothing, and IDB was upgraded. The full account of these developments is to be found in Martyr, P. (1996). *A History of the Victoria Hospital (Infectious Diseases) to the Royal Perth (Rehabilitation) Hospital, 1893-1993*, unpublished manuscript: Perth.

That the Government be requested to submit to the local authorities, at the earliest date possible, a basis upon which the local government bodies interested may in conjunction with the Government, make the earliest possible provision for an up-to-date and central hospital for the treatment of infectious diseases.⁴⁵

There were continuing difficulties between the Public Health Department and Local Authorities with respect to achieving funding for the venture,⁴⁶ but a redeveloped Infectious Diseases Hospital was ready for occupation early in 1939, at a total cost of £52,175.⁴⁷ When planning this development the Public Health Department sought information from Victoria with the intention of emulating the Fairfield Infectious Diseases Hospital, Melbourne.⁴⁸

Another feature of the 1930s was that the work of Sister Elizabeth Kenny captured the interest of both the medical profession and the public.⁴⁹ The Kenny method included giving psychological support to the polio patient and treating the group of muscles affected by paralysis with a combination of hot packs, massage, active

⁴⁵ Letter, Town Clerk, Fremantle to CPH, BL, ACC 1003, AN 120/4 626/ 1933, pp.1, 4, 6 and 7.

⁴⁶ WA, 10 February 1938, p.18;12 April 1938, p.12; 10 May 1938,p.12; 13 May 1938, p.21

⁴⁷ Martyr, P. (1996). *A History of the Victoria Hospital*, unpublished manuscript.

⁴⁸ Under Secretary to Scholes, 9 December 1933, BL, ACC 1003, AN 120/4, 626/1925, p. 4.

⁴⁹ Greenland, W. (1990). *Infantile Paralysis*, p.51. During the 1930s Sister Kenny and Lord Nuffield were both responsible for stimulating greater awareness of the needs of disabled children.

exercises and hydrotherapy, during the acute stage of infection.⁵⁰

In contrast orthodox medical treatment immobilised the patient in splints or plaster casts for up to six months, and treated pain with massage and analgesics. While some were receptive to her methods, and she was able to commence clinics in Townsville, Brisbane and Sydney, the medical establishment ultimately resisted her innovations. Controversy frustrated her work in Australia during the 1930s. It was overseas, particularly in the United States of America, that her methods achieved most recognition in the 1940s.⁵¹

Three investigations of Sister Kenny's methods were conducted in Australia during the late 1930s and the reports were published in the *Medical Journal of Australia (MJA)*.⁵² Public awareness aroused by this was sustained through media reports which broadcast her international successes and discussed her techniques. Many were searching in hope for methods which would alleviate the effects of polio paralysis, and there was an openness, particularly amongst members of the public, to anything that seemed as though it would help. But the medical establishment did not approve, though

⁵⁰ Wilson, J.R. (1995). *Through Kenny's Eyes: an exploration of Sister Elizabeth Kenny's views about Nursing*, Royal College of Nursing: Townsville Regional Group, especially Appendix B, p136. See also Martyr, P. (1994). *The Professional Development of Rehabilitation in Australia, 1870-1981*, University of Western Australia: PhD Thesis, History, Chapter 5.

⁵¹ Zwar, D. (1984). *The Dame*, pp. 84-87. Dame Jean Macnamara was very critical of Sister Kenny, and competed with her for project funds. The two women advocated opposite methods of treatment for polio. Macnamara published her views on the treatment of polio, *The Care of the Paralysis of Poliomyelitis*, (1946). *MJA*, 2, 17, 26 October, pp.577-580.

⁵² *Medical Journal of Australia, (MJA)*, (1937). The treatment of Paralysis at the Elizabeth Kenny Clinic, Royal North Shore Hospital, Sydney, 2, 20, November 13, pp. 888-894; *MJA*, (1939). Report on an investigation of twenty three cases of poliomyelitis in which the "Kenny system" was used, W R Forster and E E Price, 1, 8, February 25, pp.321-325.

The Queensland Government held a two-year-long Royal Commission into Sister Kenny's methods, the findings of which were published in full in the first edition of the *MJA* for 1938.⁵³ The Commission, did not recommend the Kenny method at all - especially during the acute or early stages of paralysis. The findings, which were reported in the press, included the statement that -

The belief held by many people in the possibility of a cure and in the reality of improvement by the Kenny method, in spite of facts to the contrary, is attributable to Miss Kenny's strong personality. Her own conviction of technical competence, and of the improvement in patients treated by her all combined to inspire the patients and relatives with greater hope, and especially with unshakeable loyalty to Miss Kenny.⁵⁴

Some ambivalence towards Sister Kenny is evident in other quarters. The Federal Health Minister, Sir Earle Page, himself a medical practitioner, declared that he could only find one point of controversy between Sister Kenny and the doctors. The the real value of her work lay in her personal enthusiasm, and the confidence she inspired in her patients.⁵⁵ Sister Kenny's methods, and her professional credibility, were soundly called into question by a medical establishment that was unable to accept the core of her work, which involved respecting and nurturing the whole

⁵³ *MJA*, (1938). Report of the Queensland Royal Commission on modern methods for the treatment of poliomyelitis, 1, 5, 29 January, pp.187-224; *WA*, 6 January, 1938, p.15.

⁵⁴ *WA*, 6 January, 1938, p. 15, and *MJA*, (1938). 1, 5, January 29, p. 219.

⁵⁵ *WA*, 19 January 1938, p.21.

person.

The report drew an indignant response from Sister Kenny who, in threatening an early conclusion to a project she was then engaged in in Melbourne said -

So many stumbling blocks have been placed in my way... I intended to stay longer... but misrepresentations by the Brisbane Commission and certain obstacles here have changed my plans.⁵⁶

After a conference with Government officials, Kenny reversed her decision and continued her work in Melbourne, and the Victorian Minister for Health, also a medical practitioner, declared that most of the profession "were eager that Sister Kenny's treatment should be investigated here".⁵⁷ Elizabeth Kenny did not visit Western Australia, but the Public Health Department apprised itself of her views and declared that "her treatment [did] not materially differ from that of doctors and hospitals everywhere".⁵⁸ From this it seems those with polio could feel confident of the treatment they would receive from their doctors, regardless of Sister Kenny. Nevertheless, her techniques did have an effect on orthopaedic practices in Western Australia.

In 1936 R.D. McKellar Hall, the orthopaedic surgeon in charge at the Children's Hospital, accepted an invitation of the Minister for

⁵⁶ WA, 6 January, 1938, p.15.

⁵⁷ WA, 7 January, 1938, p.20.

⁵⁸ Memo, Undersecretary to Angus and Robertson, 27 August 1937, request for a copy of Kenny, E. *Infantile Paralysis and Cerebral Diplegia*; Letter, 10 March 1938; Letter, 27 January 1938; BL, ACC 1003, AN 120/4, 626/1925, pp.151,290 and 317.

Health to attend a conference in Canberra to investigate the problems of dealing with the after-care of polio survivors, and those crippled by other means.⁵⁹ The controversy surrounding Kenny's work was one of the reasons the Director General of Health convened the gathering. McKellar Hall records the tensions evident between Kenny some of his professional colleagues, particularly Harold Crawford, a leading orthopaedic surgeon from Brisbane. McKellar Hall visited a Kenny Clinic in Sydney where, after witnessing a demonstration by Sister Kenny he said

I relearned an important lesson and found I was on Sister Kenny's side. A very old method of treatment was reinforced in my mind, the use of common-sense.⁶⁰

On his return McKellar Hall implemented some methods based on her technique.

At the end of 1938, when there was an unusually large number of polio after-care cases to attend to, the Public Health Department sought a person with massage skills to do what it termed "reconstruction work with post-polio sufferers,"⁶¹ but no mention is made of Sister Kenny.

A decade later when Kenny's protagonist, Dame Jean Macnamara, visited Western Australia she brought down a report that was severely critical of what she saw. The facilities in the state were a "slow but effective factory which turns the potential cripple from

⁵⁹ McKellar Hall, R.D. (1983). *Reflections*, pp.39-46.

⁶⁰ McKellar Hall, R.D. (1983). *Reflections*, p.43.

⁶¹ WA, 8 April 1938, p.18; WM, 14 April 1938, p.51.

poliomyelitis into the finished cripple".⁶² Apart from any inadequacies that existed in Western Australia's polio after care system at that time, an added factor was that she disapproved of the more active methods of rehabilitation that were being applied, derived from Kenny's techniques.⁶³

Awareness of the dangers posed by polio increased in Western Australia as a result of the epidemics in the eastern states during 1937-1938. It is significant that, in September 1937, the Public Health Department had Acute Anterior Poliomyelitis declared a "dangerous infectious disease within the meaning of section 204 of the Health Act 1911-1935."⁶⁴ Compared with its earlier status as a "notifiable disease" this change gave the Commissioner the right to invoke emergency powers in time of need. The change had to be announced each time the Department believed an emergency existed which called for access to the special powers of the Health Act. When invoked these powers temporarily authorised the Executive Director of the Public Health Department to perform duties he did not have, but were normally vested in Local Authorities. Options include powers of entry, inspection, the isolation of infected persons, houses and places, and "the removal and curative treatment of the sick".⁶⁵

Differences of opinion over polio were evident among doctors

⁶² Report, BL, ACC 1003, AN 120/4, 1190/1948, pp. 22-23. This report is discussed below, p. 182ff.

⁶³ McKellar Hall, R.D. (1983). *Reflections*, p.47.

⁶⁴ Minute, Executive Council, 9 September 1937, BL, ACC 1003, AN 120/4, 595/45, p.90.

⁶⁵ Health Act 1911, Part ix - Infectious diseases, By-law 249,6, p.189.

during the 1930s. Some treated polio infection in the same way as soldiers at war had treated death - you'll get it if it's coming to you - while others endeavoured to play down the horror and risks or paralysis. The author of the weekly column "The Diary of a Doctor" wrote -

It is right and proper that we take whatever precautions are necessary... but there is much accentuation of infantile paralysis as a horror disease... its results are not nearly so disastrous or crippling as many other quite common diseases of children. Rheumatic fever, for instance leaves more permanent damage and crippling in its train than infantile paralysis ever did. Even whooping cough is more serious.⁶⁶

The press in Western Australia were accused of fueling the growing fear of polio, but it is difficult to see how it could have censored news of epidemics from other states. Travellers, telephones and letters would have conveyed the news and rendered the secrecy counterproductive. The progress of epidemics elsewhere, particularly the severe occurrences in Victoria and Tasmania in 1937, received regular, and sometimes sensational coverage in the papers.⁶⁷

Public concern over polio is evident at this time, however it may have arisen. The Australian Natives' Association (ANA) requested the Minister for Health, the Honourable S.W. Munsie, to order that people entering the state, by any means, should be subjected to a medical examination. Such a step had been recommended and taken by other states when their neighbours were infected by

⁶⁶ *WM*, 9 September 1937, p.5.

⁶⁷ *WM*, 7 October 1937, p.2; 21 October 1937, p.59; 28 October 1937, p.59; 4 November 1937, p.60; 11 November 1937, p.59; 18 November 1937, p.72.

polio.⁶⁸ The ANA was particularly concerned that children should be examined, and asked what steps the government would take in the event of an escalation in the Victorian epidemic. The Minister's reply confirmed the difficulties being experienced by his department and, by expressing the view that the authorities did not know what factors led to an epidemic of polio, left room for any existing fear of an approaching epidemic to continue unabated. He wrote -

I can assure you that such steps as can feasibly be taken to limit or prevent the possibility of spread to this State, will be taken. It must be recognised, however, that sporadic cases of Infantile Paralysis do occur and such have actually occurred in this State, and exactly what the factors are which influence the appearance of the same disease in epidemic form are not known.⁶⁹

The ANA were joined in their concern by the Fremantle branch of the Australian Labor Party, which framed an even stronger resolution recommending that, while an epidemic was in progress elsewhere, children under sixteen should be prohibited from entering Western Australia.⁷⁰ In reply the Commissioner pointed out that his Department had appointed a consultative committee of doctors which recommended visitors from Victoria be

⁶⁸ WM, 26 August 1937, p.23. In view of the Victorian polio epidemic, a Bill was introduced to prohibit the entry into NSW, by sea, land or air, of any child of sixteen or younger who was known to have had contact with polio. These restrictions did not apply to adults, see Greenland, W. (1990). *Infantile Paralysis*, pp. 3, 38 and 44. And Buxton, A.J.G. (1977). *Polio*, pp.20-21 and 30 states that in 1937-38 the South Australian Education Department cancelled interstate trips for schoolchildren between SA and Victoria and applied quarantine restrictions, and the Northern Territory imposed quarantine restrictions against SA.

⁶⁹ Letter, 3 September 1937, and reply, 4 September 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.158-9.

⁷⁰ Letter, ALP to Munsie, 18 November 1937, p.189, BL, ACC 1003, AN 120/4, 626/1925.

quarantined. He aimed to show that the Public Health Department was exercising more rigour in this matter than other states when he said that "Infantile Paralysis is not one of those diseases for which Interstate and International quarantine has previously applied".⁷¹

In addition to concern expressed by organisations, it is evident that members of the community were fearful of the consequences of contact with polio. A man from Kalgoorlie who intended to holiday in Melbourne wrote to the Commissioner seeking advice, afraid that his trip would result in twenty one days of quarantine on his return.⁷² The Commissioner was to receive many similar letters in the the years to come.

In Western Australia a significant expression of the fear of polio and the frustration that attended it can be seen in the controversy that developed over quarantine restrictions. The controversy also may have fostered this fear because it exposed the uncertain state of knowledge about polio. And it also brought into focus the question of how extensive the powers of the Public Health Department were, and how fully it was prepared to exercise them. From this time onwards many Western Australians, in fear of their children and looking for someone to blame, came to believe that the Department ought to have been far more assertive than it was in the face of the threat from polio.

⁷¹ Memo CPH to Munsie, 16 December 1937, p.196, and Letter, Munsie to ALP, 23 December 1937, p.200, BL, ACC 1003, AN 120/4, 626/1925, p.s 188,189,196 and 200.

⁷² Letter to CPH, 28 August 1937, BL, ACC 1003, AN 120/4, 626/1925, p. 152.

The first and, in some ways, one of the most colourful examples of this fear and the associated controversy is found in correspondence between the citizens of Noggerup, a hamlet in the apple growing district of the south west of the state, and the Commissioner. In December 1937, when Tasmania and Victoria were in the grip of a serious epidemic of polio, the citizens of Noggerup received news that a family from Victoria was to visit their town. A public meeting was held which delegated three members to write to the *West Australian* and the Commissioner to express their views on the matter. They wrote -

In view of the fact that the residents of this town became aware a few days ago, that a family from Victoria, including three children, was soon to be resident here, a public meeting was held on December 2 to discuss the position, and a motion was carried that this meeting viewed with alarm the likelihood of people, particularly with children, coming to Noggerup from Victoria, and requests the Health Authorities to take action to safeguard the health of residents.

Strong indignation was expressed, especially when the following facts were made known :-

- 1) Communication with Dr Atkinson showed that there was no Government quarantine of such children - the only quarantine being for three weeks in their own home - in this case a house not 40 yards from the State School Building.
- 2) The District Medical Officer, Dr Collins, of Donnybrook, says that he has no control except in the actual township of Donnybrook, about 25 miles away.
- 3) The Education Department states that there are no regulations framed to cover the admission or exclusion of such children from the School.

It would seem, then, by the above facts, that the

Government is offering practically no protection whatever to West Australians from this dreaded disease. Dr Atkinson states that there is no cause for alarm. Why then were tours of schoolchildren to the Eastern States cancelled? These children would spend only a few days in Victoria, yet this was considered sufficiently dangerous to warrant the cancellation of those tours. New South Wales, apparently, is aware of the danger as children from Victoria are refused admittance there.

Again, who is to enforce this 21 days quarantine in country districts, isolated, as we are at Noggerup from any any medical or Government authority, also, may we ask, is every person in the house affected by the quarantine restrictions, and what penalties do those who fail to observe the quarantine orders incur?

At various times we have read of different Governments enacting laws to prohibit the entry into their State of plants, animals, etc, from other States where disease was prevalent, yet apparently the life and health of our children are of so little importance to the Government that practically nothing is being done.

Does the Government intend to wait until the disease gets a hold here, or is it prepared to take preventive measures now before it is too late?

Several months ago, Victorians were being told, as we are now, that "there is no cause for alarm" and what is the position in that State now?

We have been deputed by the public meeting, held at this place, to put our views before you and also to communicate with the Commissioner for Public Health and the Education Department and we trust that you will give this matter every publicity.⁷³

The Commissioner responded firmly and in detail. He said other states had taken as strong action as Western Australia and Tasmania which imposed quarantine restrictions on children

⁷³ Copy, with covering letter to CPH, 3 December 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.179-183;WM, 16 December 1937, p.59.

arriving from Victoria.⁷⁴ Furthermore, those from Victoria who were known polio contacts would have been in quarantine before arrival in the State. All care was taken with new arrivals, and the best possible supervision was given by Health Inspectors. The Commissioner reminded his correspondents that, thanks to the action of his Department, Western Australia had a polio advisory committee of doctors whose advice resulted in the gazetting of appropriate regulations, breach of which incurred a penalty of up to £50. In reply to the suggestion that children be dealt with at the border in a similar way to plants and animals, the Commissioner pointed out that this would involve the division of families, and in no part of the world had such a strategy been employed. In any case, he said, South Australia had kept its borders open and was not yet suffering from the disease. The Commissioner assured his correspondents that Public Health Department was exercising all vigilance and school teachers, and citizens like themselves, were encouraged to add their support in a difficult situation.⁷⁵

The citizens of Noggerup were not really satisfied and compared the response with measures taken by the Department of Agriculture when a neighbour's apple orchard was infested with Codlin Moth. In addition to receiving strict instructions regarding the disposal of fruit the a Departmental Officer practically lived on site to supervise the work. They wrote -

⁷⁴ The CPH's assertion was incorrect, as footnote 64 above indicates. See also Killalea, A. (1995). *The Great Scourge*, pp.26 ff. Tasmania added quarantine restrictions to existing policy of issuing certificates to children to permit them to travel from one region of the state to another.

⁷⁵ Letter, 9 December 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.184-5.

If, as you assert, the quarantining of arrivals from Victoria is beyond the resources of your Department, surely the alternative is to prohibit the entry of such persons into the State... we notice that the Fremantle Branch of the Australian Labour Party also has this subject under consideration and we are glad to think we are not alone in this matter.⁷⁶

At the political level in Australia there is little difference between the quarantine issues that apply to diseases affecting humans, fruit, and other foodstuffs.⁷⁷ Ironically early in 1938, as the number of polio cases began to increase, Noggerup district experienced another outbreak of Codlin Moth.⁷⁸

In addition to offers of blood for serum, members of the public volunteered good advice and bizarre forms of help during the polio years. The suggestion of a possible connection between bare feet and polio infection, referred to in Chapter 2 above, was raised during the 1938 polio scare. The first of many to come, such offers of popular insight signify a continuing level of community involvement in the quest for a solution to the problem of polio. But some gestures were not based on altruistic motives. A resident of South Africa wrote to the Commissioner:

I would suggest that your investigations follow the isolation in Raw Cows Milk of the bacillus of this disease. It has been definitely established in several health-progressive countries that children who have not been vaccinated

⁷⁶Letter, 13 December 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.193-5.

⁷⁷Controversy over quarantine restrictions occurred in Australia during the Spanish Influenza epidemic of 1918-19. McQueen, H. The 'Spanish' Influenza Pandemic in Australia, 1912-1919, in Roe, J. (ed) (1976) *Social Policy In Australia*, pp.131-147.

⁷⁸WA, 8 February 1938, p.5.

(bovine extract) and who refrain from imbibing raw cow's milk (bovine extract) are immune, or do not contract this disease. "Boil your milk" would be the housewife's slogan against this disease and also TB.

He then concluded with -

Should you test this statement and verify it my fee can be met by reserving me an assisted passage for my young family of six as immigrants under your scheme.⁷⁹

The Health Department did not respond as requested to the offer of this information, but the possible link between milk and the polio virus continued to attract attention.

In the late 1930s the Australian Government received assistance from the British philanthropist, Lord Nuffield,⁸⁰ whose company manufactured iron lungs. In 1938 Nuffield offered to donate a respirator to every hospital in the British Empire "which might reasonably make use of it".⁸¹ One hundred and fifty two respirators were installed in Australian hospitals,⁸² of which

⁷⁹ Letter, 12 December 1937, BL, ACC 1003, AN 120/4, 626/1925, p.244.

⁸⁰ In 1935, Nuffield donated £50,000 to the Commonwealth Government to help crippled children, see. Buxton, A.J.G. (1977). *Poliomyelitis*, p.66. and Greenland, W. (1990). *Infantile Paralysis*, p.10.

⁸¹ Cablegram, Acting High Commissioner, London, to Prime Minister, 13 December, 1938, AA (ACT), 1928/1, 802/21, Poliomyelitis, Lord Nuffield, gift of Iron Lungs, Applications.

⁸² Letter, Cumpston to High Commissioner, London, 3 January 1938, AA, 1928/1, 802/21, Poliomyelitis, Lord Nuffield, gift of Iron Lungs, Applications. Qld received 35, NSW 71, Victoria 14, SA 24, and ACT 1.

The 'epidemic' of 1938

Forty seven cases of polio were notified in Western Australia in 1938, double the maximum annual figure reported since records have been kept. This itself was noteworthy but the rise in the number of notifications began slowly and may not have attracted much attention if it were not for the fact that forty four of them were reported in the first five months of the year. After May the number of notifications declined, as was expected during colder weather, and the few remaining cases occurred sporadically throughout the rest of the year.⁸⁴

Late in November 1937 the Tasmanian Health Department contacted Commissioner Cook to ask if there was any outbreak of polio in Western Australia. The Commissioner replied that there was no unusual prevalence noticeable, only the usual sporadic cases which, at that stage, numbered about ten for the year.⁸⁵ A month later, on Christmas eve, a boy from the semi-rural district of Caversham was reported to have a severe case of respiratory paralysis. In retrospect this was regarded as the first of the

⁸³ See file ACC 1003, AN 120/4, 1940, especially pp. 52, 99, 123, 128, 147, 166 and ACC 1003, AN 120/4, 5178/57 pp.7-35, 85-87. During the next two decades the number was increased. In 1956, when the IDB received a large number of bulbar cases, the Public Works Department manufactured a version of the iron lung to meet the need.

⁸⁴ The occurrence of the disease in summer led, in the future, to extensive investigation of the links between climate and the virulence of the disease.

⁸⁵ Telegrams, 25 November 1937, BL, ACC 1003, AN 120/4, 626/1925, pp.174-175.

unusually large number of cases that marked the first half of 1938.⁸⁶ In January the Public Health Department obtained two respirators from Victoria, a provision which was to serve them well in the future when treatment of those who experienced respiratory paralysis was required.⁸⁷

The Commissioner resisted the notion that an epidemic was under way, an attitude later reflected in the annual report for 1938 which stated that the cases "were so widely scattered and so unassociated with one another as to suggest only a sporadic incidence rather than a spreading epidemic".⁸⁸ The outbreak could hardly be termed an epidemic but such a balanced view, taken after the event, does not reflect the feelings of the population at the time. In 1937 the epidemics in Victoria and Tasmania had raised the awareness of the potential dangers, a feeling that strengthened as the summer months approached.

From the moment quarantine restrictions were imposed in December 1937, they became the subject of controversy. This was the first time they had been imposed in Western Australia in relation to polio and, although they were applied to children under sixteen years of age who came from polio infected areas, they affected all travellers. Interstate visitors were warned of the new conditions⁸⁹ and letters were written to boarding schools advising

⁸⁶ WM, 6 January 1938, p.55.

⁸⁷ WM, 13 January 1938, p.55.

⁸⁸ *Public Health 1948*, (1949), Appendix XV, p.59, BL, 614.09 WES.

⁸⁹ WA, 13 May 1938, p.19.

of the need to quarantine any students from interstate.⁹⁰ In January 1938, perhaps to show that he did mean business, the Commissioner vowed to prosecute a visiting parent, with two children under seventeen, who had been caught disregarding quarantine restrictions.⁹¹

By January 1938 the community must have felt prospect of a polio epidemic had increased. The boy from Caversham had been admitted to hospital, a fourteen year old girl was being treated for respiratory problems, and rumours were circulating wildly. Under the heading "Alarmist rumours refuted" the *West Australian* reported that, after a meeting of the consultative committee of doctors, the Commissioner had stated -

All sorts of rumours were going about, according to reports made by doctors at the committee, that there were numbers of cases of infantile paralysis in this State. These rumours were without foundation.⁹²

The Commissioner stated that the few cases which had occurred were the same sporadic type of infections that were reported in most years. He affirmed the use of quarantine restrictions governing arrivals from interstate, and reported that the committee of doctors recommended restrictions on the movement and congregation of children "even within the state".⁹³ He said -

The visits of groups of country children to the city were

90 Letter, CPH to Lord Abbot of New Norcia, 8 February, 1938, NNA 0141.

91 WA, 15 January 1938, p.21.

92 WA, 7 January 1938, p.20.

93 The attitude of the WA Education Department to school closure was equivocal, but eventually some were closed after cases of polio occurred.

particularly discouraged, as country children were usually more susceptible to infantile paralysis than city children.⁹⁴

When a man from the wheat belt town of Morowa telegraphed the advice that he was leaving for Perth with one hundred children who were due to have a holiday at South Beach, Fremantle, the Commissioner replied firmly -

Strongly urge you not to bring country children who [are] more susceptible [to] infantile paralysis to Metropolitan area STOP. This definitely not in [the] best interest of [the] State.⁹⁵

Whether or not it was true that country children had a lower immunity to polio, the evidence suggests that, from the outset, the Public Health Department took a clear line on the congregation and movement of children during a polio scare. While quarantine restrictions had the effect of placing inter-state relations under the microscope the ban on the congregation of children directed the focus to intra-state relations. The fact that adults were not subject to the same restrictions became a source of tension and frustration within the community, and between the community and the Public Health Department.

School teachers were also affected by quarantine regulations. The committee of doctors recommended that, on their return, teachers on holiday in the eastern states should submit to twenty one days of voluntary quarantine, less the number of days spent in

⁹⁴ WA, 7 January 1938, p.20.

⁹⁵ Telegram, CPH to Morawa, 4 January 1938, p.215, BL, ACC 1003, AN 120/4, 626/1925.

travelling home from their last port of call. The Education Department reported that forty two West Australian teachers were known to have intended taking holidays in the east. The Department, which characteristically administered, with some muscle, policies proposed by Public Health, concurred with the recommendation and warned that teachers who did not return home in time to fulfil their quarantine obligations before school commenced would be banned from the classroom, and incur loss of pay.⁹⁶

It seemed anomalous that, while under quarantine, teachers were banned from the classroom but were otherwise unrestricted in their movements. Whereas in the case of smallpox all travellers were quarantined and released after vaccination, adults were thought to be less susceptible to 'infantile paralysis', and so could move about, and there was no prophylactic vaccine that was regarded as sufficiently strong or trustworthy. The Commissioner expressed views which would return to haunt him in the future when he said -

Total quarantine for infantile paralysis would mean the complete disorganisation of business interests, as adults as well as children would have to be kept in quarantine for three weeks. As adults in the main are not susceptible to the disease, their quarantine would not be very justifiable.⁹⁷

Public criticism of quarantine restrictions continued with local government bodies joining the fray. The District Road Board of

⁹⁶ WA, 15 January 1938, p.21; WA, 18 January 1938, p.13.

⁹⁷ WA, 18 January 1938, p.13.

Cue, which was responsible for station country surrounding a remote and now almost defunct mining town, forwarded to the suburban Nedlands Road Board a recommendation that -

A strong protest be forwarded to the Commissioner for Public Health against the allowing of children from those Eastern States where infantile paralysis is prevalent to land in this State and to travel to various parts before being isolated, and this board considers that such isolation should be made at the port of entry, and strongly urges that this procedure be adopted, a copy of this protest be sent to all road boards in the State with a request for their support. ⁹⁸

Nedlands Road Board joined their country colleagues and, with only minor amendments, supported the recommendation.

In the press the Commissioner defended the approach being taken by his Department, again citing the fact that its policies were developed after consultation with the consultative committee. He pointed out that Western Australia had adopted stronger provisions than those which, in Victoria, had proven beneficial in slowing the spread of polio. For the benefit of those who thought that everyone entering the state should be quarantined at the point of entry, he indicated that such measures usually only applied where the disease in question was unknown to the country, and all of Australia was familiar with polio. And in connection with the cry to quarantine only children at the point of entry, he said it was a measure which would ultimately only help the spread of the disease, and would have been impractical. It would -

⁹⁸ WA, 2 February 1938, p.9.

...necessitate for this State huge establishments at Kalgoorlie, Albany and Fremantle, where three trains and at least three boats a week would be constantly landing families from whom children under a certain age would have to be separated and quarantined... In each centre there would be very shortly a colony of children... living under the most suitable conditions for spread of the disease...⁹⁹

All visitors were informed of their responsibilities before they left their point of entry into Western Australia. Where polio did occur in a visiting family the preferred method was to isolate the child in the host home in the hope of containing the disease. The Commissioner indicated the policy was a success and reported that, by the end of January, the monitoring of the many adults and children who had re-entered Western Australia during a peak holiday period revealed that no cases of polio had been imported into the state.¹⁰⁰

Shipping companies working the interstate routes were requested to keep children under 16 on board while their vessels were berthed in West Australian ports. When in January 1938 some passengers from the *Kantmbla*, which arrived at Albany from the eastern states, defied orders and took their children ashore the Minister for Health threatened tougher action against these and any similar perpetrators.¹⁰¹ The purser claimed that the shipping company had not been advised of the new regulations prior to arrival at port. A doctor on board challenged the assumptions behind the

⁹⁹ WA, 28 January 1938, p.11.

¹⁰⁰ WA, 28 January 1938, p.11.

¹⁰¹ WA, 10 January 1938, p.23; 11 January 1938, p.14; 12 January, 1938, p.7; WM, 20 January 1938, p. 54.

precautions declaring them to be "futile" in view of the fact that "you will probably get it eventually... they can't stop it from spreading unless the winter beats it".¹⁰² The doctor illustrated his point by referring to the fact that Victoria had now eased its strict quarantine regulations, but these had been revoked because the Victorian epidemic was now in decline. He added that in his view, as far as Western Australia was concerned, the distance from elsewhere was sufficient safeguard. As far as the Public Health Department was concerned, the distance from elsewhere was an important reason why it sought to restrict the traffic of those most vulnerable to the disease. Differences over polio amongst doctors and health officials was not uncommon and, when aired publicly in this way, did little to inspire confidence.

Meanwhile in Western Australia interest in polio was kept alive by regular announcements in the press of more cases at home and abroad. One such, headed "Man's Death in Adelaide,"¹⁰³ would have helped keep any existing fear alive and provoked readers to ask the question of whether polio did only affect children, and who was at risk from its paralysing power.

Despite the fact that draconian powers were given to the Public Health Department under the Health Act 1911,¹⁰⁴ its preferred method of operating was to exercise the power of persuasion. The Commissioner postured in the press and threatened to prosecute parents who broke the restrictions, and occasionally did so.

¹⁰² WA, 12 January 1938, p.7.

¹⁰³ WA, 5 February 1938, p.20.

¹⁰⁴ Health Act 1911, Part ix - Infectious diseases, By-law 249.6, p.189.

Reports were released to show that Health Inspectors did in fact monitor the behaviour of families living under quarantine restrictions.¹⁰⁵ The attitude of the Department was clear and consistent on this point but, in some cases, its administration of policy was handled ineffectively.

The Commissioner complained when the Young Australia League (YAL) ignored his advice that its plan to take a party of thirty eight boys on tour of the eastern states did not meet with the approval of the consultative committee. The Director of the YAL responded to the criticism by declaring "there has been no defiance of any health regulations by the League" and indicated that medical experts in New South Wales had given an assurance that there was no risk to the boys in Sydney. "When doctors differ, who will decide?"¹⁰⁶ he asked and alleged that the "more emphatic opinion" of the health authorities was not conveyed until after the boys had left for Sydney. There may have been some laxity on the part of the Public Health Department, or it may be that Simons, the Director of the YAL was particularly pigheaded. But it was not the last time the Commissioner and the YAL would clash over a proposed tour during a polio scare.

From the public point of view policies related to the isolation of children were not implemented consistently, either between the different Australian states or within states, despite the fact that the topic was frequently discussed by health experts. Research by

¹⁰⁵ WA, 15 January 1938, p.21.

¹⁰⁶ WA, 3 January 1938, p.13.

the National Health and Medical Research Council suggested that isolation could at least slow the progress of an epidemic, and so it advocated that any child who experienced a minor febrile illness should be segregated until a diagnosis had been achieved. Similar treatment of paralysis victims, however, was considered unnecessary because the risk of infection was thought to have passed.¹⁰⁷

Belief in the efficacy of isolation was one reason for the policy of quarantine practiced during the 1938 epidemic. Discussions were to continue during future epidemics in Western Australia and, as in other parts of the country, strong views were held on both sides of the argument. While interstate visitors were subjected to the precautions of quarantine and residents of rural Western Australia were discouraged from bringing children to Perth, some country centres acted as if they would like to blockade themselves against intrusion from outside.

During the summer months of 1938 the Commissioner responded to alarmist rumours in order to put the record straight. He reported that there been eleven cases during February, six in the metropolitan area and five from widely scattered areas in the country.¹⁰⁸ The next day stated that since 1 January a total of twenty one cases had been reported.¹⁰⁹ While not a large figure this represented a considerable increase on the yearly average to date, and was three higher than nineteen, the maximum annual

¹⁰⁷ WA, 3 January 1938, p.13.

¹⁰⁸ WA, 3 March, 1938, p.19.

¹⁰⁹ WA, 4 March, 1938, p.23.

figure recorded since 1913. The Commissioner was at pains to point out that the mild nature of the disease being experienced could have meant that some cases would have been overlooked, were it not for the constant vigilance and attention to detail of the medical profession. There may not have been the hundreds of cases that some people imagined, and the medical profession may have been doing its job well. But it is also possible that the alarm present in the community was based on knowledge of cases that people were unwilling to report.

When infections did occur the Public Health Department took action, particularly in relation to schools, a tactic which, while it showed decisiveness and strength, may have served to underline perceptions of the gravity of the situation. In March the Mt Hawthorn, Rosalie and Claremont Practising Schools were closed, as was St Brigid's Convent, West Perth, and the country schools of Kellerberrin and Mingenew.¹¹⁰ In the weeks following more schools and kindergartens were dealt with in the same way.¹¹¹ The Commissioner pointed out that this action was futile if parents allowed their children to attend public gatherings before the period of quarantine was completed. The Churches of Western Australia respected the policy of discouraging the movement and congregation of children and teenagers and cancelled their annual Easter Camps that year.¹¹²

¹¹⁰ WM, 3 March, 1938, p.57; 10 March 1938, p.18; 17 March 1938, p.54. Buxton, A.J.G. (1977). *Poliomyelitis*, pp. 28-29. South Australia had implemented school closures and the cancellation of functions where children would mingle in 1937.

¹¹¹ WA, 18 March, p.25; 31 March, 1938, p.15; 5 April, 12.

¹¹² WA, 18 March, 1938, p.25.

By 24 March twenty eight cases had been reported of which just over half, fifteen, were from the country. In April a 24 year old patient from the far flung rural district of Newdegate was brought to the Infectious Diseases Hospital, where he developed respiratory paralysis and died.¹¹³ By mid April the outbreak had peaked and near the end of the month the Commissioner announced that no case had been reported for seventeen days. He was also able to report that the epidemics in other states had abated.¹¹⁴ On 12 May the consultative committee recommended the lifting of the quarantine restrictions affecting children who arrived from New Zealand and the eastern states of Australia.¹¹⁵ The matter, which had been under consideration since April, was brought forward as the result of a letter to the Commissioner from the Committee from Associated Shipping Companies who were seeking to be relieved of the burden of dealing with quarantine restrictions.¹¹⁶

In Western Australia during the 1938 there was a genuine fear of contamination from polio introduced from overseas, other Australian states, and between city and country. Some clearly wanted the Health Department to insist on stronger quarantine laws, especially in connection with children entering the state. Local authorities did not support the policy of the Public Health Department and lobbied to bring about a change. A minority of doctors also did not support the line taken by the Public Health

¹¹³ *WM*, 24 March, 1938, p. 57; 14 April 1938, p.51; *Argus*, 31 March 1938, p.3.

¹¹⁴ *WA*, 22 April 1938, p.22.

¹¹⁵ *WM*, 19 May 1938, p.56.

¹¹⁶ *WA*, 13 May 1938, p.19.

Department,¹¹⁷ revealing divisions amongst the members of the medical profession over how to deal with polio. Their insistence that a more open policy would suffice revealed that, at this stage, health experts were actually at a loss over what to do about polio.

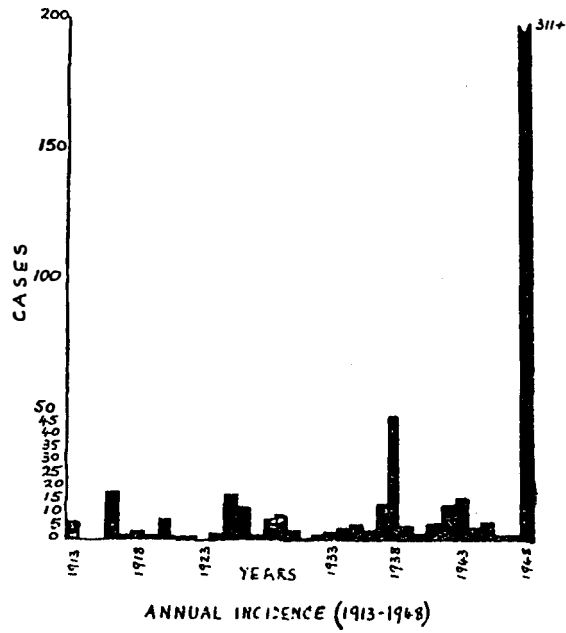
During the polio outbreak of 1938 the Public Health Department experienced some difficulty in achieving its goals of providing a sense of safety and confidence with respect to polio. A decade later, when the first real epidemic occurred the resources of the Department were tested far more sorely, by the polio virus, the press, and members of the community.

¹¹⁷ WA, 12 January 1938, p.7. A doctor, a passenger on the *Kanimbla*, said quarantine was "futile" because "you would probably get it eventually".

Figure 4: Annual reported incidence of poliomyelitis 1911-1926. Source, Cumpston, J.H.L. (ed. Lewis, M.J.). (1989). *Health and Disease in Australia*, p. 326.

Year	NSW	Vic	Qld	SA	WA	Tas
1911						
1912			5 *			3
1913	47		38 *		8	4 *
1914	79		6 *		-	-
1915	63		332 *		-	-
1916	311	76	27 *		19	3 *
1917	16	32	37 *		2	3 *
1918	50	303	13 *		4	14 *
1919	8	2	119 *		2	5 *
1920	45	5	17 *		8	1 *
1921	184	27	35 *		1	1 *
1922	33	23	25 *	47	-	1 *
1923	104	7	1 *	17	8	3
1924	108	12	112	-	3	3
1925	50	139	39	13	19	1
1926	78	31	42	2	13	3

Figure 5: Annual reported incidence of polio in Western Australia 1913-1948, *Public Health 1948*, (1949). Appendix XV, p.58, BL, 614.09 WES.



CHAPTER 5: Fear and Frustration: the 1948 epidemic.

Western Australia experienced its first major epidemic of polio during 1948. Throughout the year several factors combined to make it a very unpleasant and frustrating experience for the whole of the community. The fear of polio was exacerbated by uncertainty concerning the disease and its transmission. Frustrated by a lack of experience and resources the Public Health Department bumbled through, seeking help wherever it would be found. The protection measures it implemented, especially quarantine restrictions, were distrusted and resisted, while criticism and alternative suggestions flowed freely, especially in the press.

Two cartoonists, Saw and Davies, made visual comment on the polio epidemic, in the *Daily News* and the *Sunday Times* respectively, and went so far as to represent polio itself in their work. Saw, who pilloried the introduction of quarantine restrictions, suggested that, thanks to the Public Health Department, Western Australia was suffering from a bad case of Governmental paralysis.

The fear and frustration that accompanied the 1948 polio epidemic were eloquently represented by the story, published in the *Daily News* late in January, of Roger Groom, a fourteen-year-old Vee Jay yachting champion, photographed at home working on his

boat.¹ Roger, who was favoured to win the upcoming W.A. junior sailing championship, was unable to compete because he was in quarantine. Earlier in the month Roger had broken his Young Australia League (YAL) tour to the eastern states and travelled to Sydney where he won a sailing competition. His return flight home called at Adelaide, which was in the grip of a polio epidemic, and Roger was put into quarantine. The Public Health Department had imposed quarantine restrictions to prevent the spread of polio from South Australia. The irony is that, on his outward journey, Roger visited Adelaide before he travelled to Sydney, where he raced during what would have been the incubation period, had he contracted polio.

Late in January 1948 the first case of polio was reported for the year, followed by five more reports in March. Many epidemics were known to decline once summer was over but during autumn this outbreak increased in intensity, while the weather remained unusually warm. Further cases were reported in April and May. The winter months of June, July and August together produced 155 cases - half of the total for the entire year.² A total of sixty seven cases in July was the worst month-to-date total so far recorded in Western Australia. The epidemic appeared to die away in September but revived during November and December [Figure 6].

¹ *DN*, 30 January 1948, p.8.

² *Public Health 1948*, (1949), Appendix XV, p.62, BL, 614.09 WES.

The final total of 311 cases (a rate of 62 cases per 100,000 population) consisted of 181 from the metropolitan area and 130 from the country.³ The youngest person to contract polio in this epidemic was four months old, and the eldest fifty-one years of age. Approximately 40% of those affected suffered some residual paralysis. The twenty-five deaths that occurred represented a mortality rate of approximately 8%, which was considered "normal" except for one thing - among young adults and particular groups of adults the death rate was significantly higher.⁴ Within the 20-29 age group the rate was 30.6% while it was 47% for country males in the same age bracket. Mortality was also high amongst pregnant women. Five of the nine pregnant women who contracted polio died, compared with only three deaths amongst fifty-four non-pregnant women of child-bearing age.⁵

The 1948 epidemic presented the Public Health Department with its first major opportunity to analyse and evaluate the incidence and the effects of the disease in Western Australia. Comprehensive epidemiological work was undertaken by Dudley Snow whose findings became part of the Annual Report for that year.⁶ It is not clear how Snow managed to investigate the epidemiology of polio on this occasion, as he did not officially join

³ *Public Health 1948*, (1949). Appendix XV, p.65, BL, 614.09 WES. In 1945 Western Australia had a population of 492,018, of which 233,000 lived in urban areas and approximately 25,000 were of Aboriginal descent. See, Hetherington, P. "Introduction: Western Australia in the Commonwealth, 1939-1945", in Gregory, J. (ed) (1997). *On the Homefront: Western Australia and World War II*, University of Western Australia Press: Nedlands, p.3.

⁴ *Public Health 1948*, (1949), p.12, BL, 614.09 WES.

⁵ *Public Health 1948*, (1949), p.67, BL, 614.09 WES.

⁶ *Public Health 1948*, (1949), p.12, and Appendix XV, BL, 614.09 WES.

the Perth Office of the Department until almost three years later.⁷

The Public Health Department used a method devised by John Snow (1813-1859), a name sake of its own Dr Snow, created serial spot-maps of the metropolitan area, a device which provided a visual history of the progress of the epidemic. The serial spot map of the first 150 cases reported in 1948 revealed a greater incidence in suburbs north of the Swan river [Figure 6]. The Annual Report also included a full list of the localities affected by polio. The large number of towns and suburbs recorded clearly suggest that polio was a classless disease, affecting people from all walks of life.

Several features of the 1948 epidemic were considered to be significant.⁸ There was little traceable link between cases, so that except for a few instances, no history of contact could be identified. The epidemic continued into the winter months and was at its worst when it would normally have been expected to decline. Western Australia had an unseasonably dry winter in 1948, a feature which reinforced the interest already being taken in the link between weather patterns and the activity of the virus. The spread of infection increased during the Royal Show and school holidays [Figure 8], suggesting that contact between different groups of children had been a factor in the dissemination

⁷ Snow, D.J.R. (1981). *Progress*, p.xi. During his career in the Public Health Department, Snow rose to the position of Deputy Commissioner of Public Health, a role he filled from 1963 until his retirement in 1973. WA, 11 February 1948, p.8. Snow, with Dr E.G. Saint, arrived from England in February to work as a Public Health Department Doctor with the Royal Flying Doctor Service in the north west of Western Australia.

⁸ *Public Health 1948*, (1949). p.12, BL, 614.09 WES.

of the disease.

There were epidemics of polio in several countries of the world in 1947 and 1948. A severe epidemic which involved almost ten thousand cases occurred in England.⁹ New Zealand, which experienced a severe epidemic in 1948, reported significant increases in new cases of polio during 1946 and 1947.¹⁰ New Zealand schools remained closed from the beginning of 1948 until Easter, and the authorities sought assistance with after-care from the Kenny Institute of the USA which dispatched two technicians and a supply of "electrically operated centrifugal apparatus" not previously used in that country.¹¹ In 1948 a large outbreak of polio occurred in North Carolina, USA.¹²

Large epidemics of polio occurred in eastern Australian in 1945-47, particularly New South Wales, Victoria, Queensland, and Tasmania.¹³ The incidence declined markedly in 1948 but in that year South Australia, Western Australia's nearest neighbour, reported ninety-eight cases, which represented the peak of a three year upward trend. Between 1938 and 1948 there were relatively few cases of polio in Western Australia, and in 1946 and 1947 there were only two cases each year. It must have seemed that an epidemic might not strike but, as had happened in 1938, it was

⁹ *Public Health 1948*, (1949). Appendix XV, p.59, BL, 614.09 WES.

¹⁰ Ross, J. (1993), *New Zealand*, Table 1, pp.108-109.

¹¹ WA, 28 January 1948, p.3.

¹² *Sunday Times*, 18 July 1948, p.4.

¹³ *Public Health 1948*, (1949). Appendix XV, p.58, BL, 614.09 WES.

after the decline of epidemics in the eastern states that cases began to be reported in Western Australia. The link was circumstantial, not proven.¹⁴

On 30 December 1947 the Health Department gazetted quarantine regulations, measures that were consistent with those adopted in 1938.¹⁵ Children who arrived by land, sea or air from South Australia and New Zealand had to remain in isolation for twenty-one days. All such arrivals, and any sickness that subsequently occurred in the host house were to be reported to the Public Health Department. All who passed through South Australia on their journey to Western Australia would be subject to quarantine.

Quarantine restrictions did not affect arrivals from Singapore, a busy international port which had regular shipping links with Western Australia. In April the *West Australian* carried news of the death from polio of an Australian, the wife of a newspaper executive working for the *Straits Times*, Singapore.¹⁶ When challenged on the matter the Public Health Department gave the assurance that any cases of polio on board would become evident on the journey to Fremantle, where the normal quarantine procedures would suffice.¹⁷ In any case, it did not consider there was an epidemic of polio in Singapore.¹⁸ On this occasion the fear

¹⁴ *Public Health 1948*, (1949). Appendix XV, p.60, BL, 614.09 WES.

¹⁵ *WA*, 1 January 1948, p.5.

¹⁶ *ST*, 25 April 1948, p.12.

¹⁷ *DN*, 6 January 1948, p.1

¹⁸ *DN*, 19 April 1948, p.8; 3 June 1948, p.2; 21 June 1948 p.2.

of Asia ran second to the fear of polio in neighbouring Australian states.

The father of a family in quarantine was reported to have broken the ban.¹⁹ Parents who breached the restrictions were threatened with prosecution and in mid-January, in the second of such cases to occur in that district, a Kalgoorlie woman was fined £5 for failing to keep her child isolated for the entire statutory period.²⁰ As the number of cases rose the Commissioner, Dr C.E. Cook, requested Local Health Authorities to advise him of any breaches of quarantine so that orders could be issued to parents whose children were infected.²¹

Quarantine restrictions were a major source of frustration in the community during 1948. From the outset of the epidemic there was controversy over the question of contact and isolation. The *Daily News* responded to the imposition of quarantine regulations with a leading article accompanied by the first of a series of cartoons by artist Lew Saw,²² who offered graphic commentary on the Public Health Department's handling of the epidemic.

¹⁹ DN, 9 January 1948, p.4.

²⁰ WA, 16 January 1948, p.10.

²¹ Memo, CPH to LHA, 31 May 1948, BL, ACC 1003, AN 120/4, 944/1948, p.5.

²² Lew Saw, whose family lived at Armadale, an outer suburb of Perth, was employed as an artist by the *Daily News* where he also functioned as a cartoonist. Saw was successful with this form and eventually left Australia to cartoon in Canada. He was followed at the *Daily News* by Paul Rigby. In 1948 the *West Australian* did not employ an artist. This information provided to the author by Bruce Wroth and Peter Ewing. I am grateful to Pamela Hodge and Brian Shoemith for their discussions of the iconography of these cartoons.

Australian newspapers have employed the comic art of cartoons to make political and editorial comment since at least 1850.²³ Always a popular feature of the papers, cartoons used images that drew upon a wide diversity of themes not restricted to Australian culture.²⁴ The work of each artist was idiosyncratic, but nevertheless reflected the cartoonist's perception of an issue that currently affected the community.

The first of the eight cartoons to be examined in this chapter, and the accompanying article, were in support of quarantine restrictions. The cartoon, captioned "There's No Room For Argument" [Figure 9],²⁵ visually expressed the question posed in the article which was -

A mother has to travel to South Australia and must take her child. She is frightened of Infantile Paralysis - yet irked by the prospect of quarantine regulations. What should she know, what should she do?²⁶

The picture shows a well-to-do mother, labelled "quarantine dodger", with her son, dressed in clothes resembling a private school uniform, labelled "juvenile traveller", confronted by a doctor, who represents the authority of the Public Health Department. Behind the doctor is a bed and theatre floodlight,

²³ Coleman, P., Tanner, L. (1967). *Cartoons of Australian History*, Thomas Nelson and Sons Ltd: Melbourne, p.7.

²⁴ Gordon, I. (1986). *Stop Laughing This is Serious: the comic art form and Australian Identity 1880-1960*, unpublished BA Honours Thesis, University of Sydney, p.85.

²⁵ DN, 17 January 1948, p.2. Cartoons in Figures 8-12, 14-16 provided courtesy the *West Australian*, reproduction permit PF 428D. Cartoons in Figures 13 and 20 courtesy the *Sunday Times*, verbal permission 28 August 1996.

²⁶ DN, 17 January 1948, p.2.

and a nurse who is discreetly at work beside a box respirator, popularly known as the "iron lung". The mother protests, "You can't expect me to keep him cramped up at home for 3 weeks!", to which the doctor replies, "We do: home was never like this".²⁷

The iron lung, feared icon of polio's crippling power, represents scientific and technological advancement, hopefully the saviour of many. But it was also symbolic of the horrific fate that lay in wait for some who became infected and then paralysed. The message was that the new regulations would prevent having to face the living death of paralysis, or perhaps even death itself.

In similar fashion to 1938, questions were raised concerning the policy of quarantine restrictions that applied to children but not to adults. A letter expressing this opinion was published on the same page as the cartoon and the accompanying article. This was the last time cartoon commentary favoured the Public Health Department. From this time onwards it was pilloried, particularly by the *Daily News* and the *Sunday Times*, for its imposition of quarantine, and for using the policy of persuasion.

Community resistance to the quarantine restrictions was aroused by two events that occurred in quick succession during January. The published opinions of Commissioner Cook on the subject, and the way in which a party of YAL boys were dealt with who returned home from a visit to the eastern states.

²⁷ DN, 17 January 1948, p.2.

Fear of polio in other parts of Australia had, once again, not been sufficient to cause the YAL to abandon its plan to take a party of 250 West Australian boys on tour. They travelled through South Australia to arrive, on January 6, in Melbourne where they were housed at the showgrounds.²⁸ The new quarantine restrictions were applied to them on their return but the Commissioner decided that, since the party had visited South Australia on its outward journey and would not pass through it on their return, the boys could count their quarantine from the date of departure from Adelaide. This plan would require them to be isolated for only a few days when they reached home.²⁹ It was a compromise policy intended to minimise the inconvenience to the boys and their families.

In mid-January there were reported to be 146 children in isolation. The return of the YAL boys in the third week of January exacerbated an accommodation crisis and the Commissioner appealed to the public for offers of help with the provision of rooms.³⁰ A number of the YAL boys were housed in the former Cathedral Hall, located opposite Royal Perth Hospital, which was in the process of being converted to a TB clinic. Poor washing facilities and a complete lack of electricity gave the press another opportunity to highlight the practical problems created by the

²⁸ WA, 6 January 1948, p.4.

²⁹ WA, 1 January 1948, p.5; 22 January 1948, p.9.

³⁰ WA, 24 January 1948, p.4.

quarantine restrictions.³¹

Near to the time the YAL boys were due home, and perhaps to stifle developing criticism, the *Daily News* published an article in which the Commissioner provided a full account of the reasons for the introduction of quarantine. The explanation revealed the limits of the policy and exposed the Commissioner and his Department to doubt and criticism. In the event that cases of polio were discovered in a neighbouring state, the Commissioner listed the reasons why quarantine restrictions would have limited success -

- a) The probability that infection had already crossed the border in a carrier before cases began to appear in the adjoining state.
- b) The possibility that the epidemic in the adjoining state [was] simply the outcome of some environmental change operating upon a virus [in that state]...
- c) In actual fact, blanket quarantine [was] impossible. The demands of commerce and other dictates of self-interest would require special exceptions or the prohibition would be defeated by clandestine migration.³²

The statement was designed "to allay public fear" but the CPH did not improve his standing with the public, and the case for imposing restrictions was weakened significantly. If experts believed polio was probably already present in Western Australia, people must have wondered why the restrictions had been imposed in the first place.

³¹ *DN*, 26 January 1948, p.4.

³² *DN*, 23 January 1948, p.2.

The Commissioner blamed the press for arousing fear, and attempted to play down the dangers of polio, indicating that people should demonstrate more confidence in his department. He said -

Infantile paralysis receives far more attention from the Press than its relative incidence merits. Every new case is counted and reported with such details as may be gleaned for the purpose. This is true of no other notifiable disease, although several of these occur in much greater numbers over longer periods and cause... much greater damage... Panic, or lack of confidence, are bad psychological ingredients in a community during epidemic times and the health authority must decide whether the public's interest does not demand some attempted control even where epidemiological expectation of success is small.³³

The Commissioner may have believed that he was providing inspirational leadership but by highlighting the dangers of giving in to panic, and lack of confidence, he reflected unfavourably on his readers, and his words returned to haunt him.

The next day Saw pilloried the situation in a cartoon, captioned "Paperchase" [Figure 10],³⁴ which depicted a man, labelled "health regulations", perched in the branches of a tree with a bag of quarantine regulations on his arm. The man dropped pages labelled "bans, rules, restrictions and orders" onto the ground below while two men, "the public" and "the press", chase each other around in circles over them. While a policeman tries to intervene the man in the tree says "We're not sure that all this is really necessary, but it saves a panic".

³³ DN, 23 January 1948, p.2.

³⁴ DN, 24 January 1948, p.2.

The implementation of the quarantine restrictions was followed by the issue of a series of announcements and pamphlets which detailed the nature of polio and recommended the precautions necessary to avoid infection.³⁵ But Saw believed the public questioned their worth.

A few days later "Quarantine Victim", an articulate schoolboy, challenged the views expressed by the Commissioner in a letter to the press. He asked why the needs of commerce were allowed to endanger public health, how quarantining 400 children served to allay public fear, and why no-one seemed to mind "taking it out on the kids?"³⁶ The Commissioner did not comment publicly on the letter which, though written by a sixteen year-old, had a rather adult tone.

The *Daily News* regaled the public with stories that showed the effect of the restrictions on children and young people who were quarantined. It was at this point that the story of Roger Groom appeared.³⁷

Another Saw cartoon [Figure 10] appeared.³⁸ Obviously drawn with Roger Groom's story in mind it was captioned "Are We getting

³⁵ Pamphlet, B/L ACC 1003, AN 120/4, 944/1948, p.3; Pamphlet, B/L ACC 1003, AN 120/4, 944/1948, p.12.

³⁶ *DN*, 28 January 1948, p.2.

³⁷ *DN*, 30 January 1948, p.8.

³⁸ *DN*, 31 January 1948, p.2.

Anywhere?" The picture is of a doctor's surgery in which a boy, gagged and with hands and feet tied, sits on a couch. A doctor, "Health Department", prepares a huge injection from bottles labelled "restrictions" and "regulations". Nearby stands a box of "adhesive (red) tape." The doctor says "Of course this treatment won't prevent infantile paralysis". Standing nearby the boy's father, with a worried look on his face, replies "Hmm, it seems to be causing paralysis of a sort".³⁹

The community were feeling the effect of the restrictions and saw the policy as illogical. A week later Mary Ferber, a journalist who was known for her controversial style, wrote a forceful leading article headed "Let's call the whole thing off" in which she used words of the Commissioner himself to damn the use of quarantine restrictions.⁴⁰

The next cartoon to appear [Figure 12] unfavourably compared the quarantine policies of Western Australia with the polio policies of the eastern states.⁴¹ The scene is the entrance to a picture theatre where a large poster advertises "Now Showing, WA Public Health Department Treatment for Paralysis - Epidemic Isolation." A boy, gagged and with hands and feet tied, lies on the ground next to a coil of rope with the caption "thousands of feet of red tape used in the making". Standing over the boy is a doctor, made to look like

³⁹ *DN*, 31 January 1948, p.2.

⁴⁰ *DN*, 7 February 1948, p.2.

⁴¹ *DN*, 13 February 1948, p.2.

a quack, who appears to be hypnotising him. On the footpath near the poster stand three figures representing the states of New South Wales, Victoria and Tasmania, who say to each other "We seemed to have achieved the same result with far less drastic methods".

Commissioner Cook could hardly fail to realise that, despite the fear of polio, the quarantine restrictions affecting interstate travel were highly unpopular, and medical experts, as represented by his department, were being cast in a bad light. In mid-January he had declared that the restrictions would not be continued "a minute longer than necessary", and on 20 February they were lifted.⁴²

As the epidemic progressed there was a growing realisation amongst health professionals and members of the public that children were not the only group to be affected by the disease. Adults were in contact with polio, though it was believed they were less likely to suffer from its effects, and both children and adults were potential carriers. With this in mind, many people came to believe that the quarantine restrictions were an ineffectual safety measure.

The belief that the movement should be restricted of known adult polio contacts, or potential carriers, was highlighted in a letter to Commissioner Cook from the wife of a farmer. She was dismayed to discover that a shearer, who had been on her property for eight

⁴² WA, 13 January 1948, p.6; 13 February 1948, p.8.

days, had immediately beforehand lived for two days in a Fremantle house from which a child with polio had been removed. The shearer was known to the Fremantle Health Inspector as a polio contact. She believed his freedom of movement compromised her own careful policy of keeping her six month old baby away from crowds. The question she and many like her asked was - "why all contacts cannot be isolated for three weeks prior to associating with the general public?"⁴³ The answer was that the authorities thought society would not have been able to function under those circumstances. In any case uncertainty remained about how the disease was transmitted. And at this stage adults were thought to be less susceptible than children.

While itinerant workers did not find their activities restricted, others were forced to be more conscientious. An embarrassed clergyman, whose six-year-old son was suspected of having polio, cancelled church services and ceased visits to the local school while his family were in quarantine at home.⁴⁴

A pamphlet issued by the Public Health Department conveyed the assurance that "more than half of the diagnosed cases obtain complete recovery," and, "most get back partial and reasonable use of paralysed muscles" - outcomes that would be aided by early recognition and appropriate attention.⁴⁵ No mention was made of

⁴³ Letter, 27 July 1948, BL, ACC 1003, AN 120/4, 944/48, unnumbered page.

⁴⁴ WA, 3 July 1948, p.2.

⁴⁵ Pamphlet, BL, ACC 1003, AN 120/4, 944/1948, p.3.

the possibility of death.

Further publications provided additional information regarding the scalding of milk, the peeling of uncooked fruit and vegetables, and the consumption of food, including ice-cream, that was prepared outside the home.⁴⁶ The consumption of foodstuffs prepared outside the home was discouraged because of the risks of contamination through handling, rather than the lack of pasteurisation. But this assumed that the dairy products used at home had been pasteurised and were less likely to be contaminated through human contact.

Ice cream manufacturers reacted to their product being stigmatised in this way. Later in the year, when the second wave of the epidemic was under way, and no doubt sales of ice-cream for end of year parties were suffering, the management of Peters' Ice Cream (WA) Ltd defended its product in the press.

In the manufacture of Peters' ice cream, the mix is pasteurised in accordance with the most modern methods of pasteurisation known as "flash pasteurisation," to ensure the purity of the product. It is manufactured under the supervision of a bachelor of science on the staff of this company, under the most hygienic conditions and subject to Government inspection. We claim with confidence that Peters' ice cream could not be a possible source of infection. We further understand that in recent references in British medical journals it has been stated that ice cream, when pasteurised by modern methods, could not be responsible for the spread of infantile paralysis. The granting of space for publishing this letter in your newspaper would be appreciated as ice cream has, in our opinion, completely without justification, been singled out from all other foods

⁴⁶ Pamphlet, BL, ACC 1003, AN 120/4, 944/1948, p.12.

Health experts were still searching for clues to the conditions that allowed the polio virus to thrive and spread. All possible links were considered in an effort to gather information and to build up a complete epidemiological profile of polio. A pamphlet issued by the CPH requested that Health Inspectors note whether or not children had previously had measles, mumps, chicken pox or other viral diseases, and if there had been close contact with animals, particularly those that had been sick.⁴⁸

Attempts were made to allay the fears associated with polio, particularly in respect to the effects of paralysis and the threat to life. Another pamphlet contained the defensive reassurance that "your child has more chance of being crippled by a motor car than by infantile paralysis".⁴⁹ Similar comparisons were made on other occasions. In September it was reported that there had been seventeen deaths from polio so far that year, whereas the annual numbers of deaths from heart disease and cancer in Western Australia were 646 and 324 respectively.⁵⁰ But people continued to find the risk of death or life-long paralysis from polio, particularly amongst children, especially fearful.

During 1948 the warm Autumn weather extended well into May

⁴⁷ WA, 10 November 1948, p.2.

⁴⁸ Letter, 14 June 1948, p.10, and Memorandum for Health Inspectors, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁴⁹ Pamphlet, BL, ACC 1003, AN 120/4, 944/1948, p.12.

⁵⁰ DN, 7 September 1948, p.4.

and from this time the number of polio cases began to rise. Seven cases, from diverse parts of the Metropolitan area, were reported in the third week of the month compared to one in the preceding three weeks. The Assistant CPH tried to suggest there was no need for alarm, believing the activity of the virus would subside when the cooler weather came.⁵¹ But the weather remained warm and the trend continued. A boy from Nedlands died within twenty-four hours of showing first symptoms, and when three cases were reported amongst children from two schools in nearby Claremont the question of school closure was discussed.⁵² The Deputy Premier, the Ministers of Education and Health, the Director of Education and the CPH met and concluded that no good purpose would be served by the closure of schools because while they remained open it was easier to supervise the children. The warm weather continued and the epidemic intensified. In June several schools and a kindergarten were closed, and four suburban theatres discontinued Saturday matinees for children until the position improved.⁵³

The persistent, but erroneous, belief that the nose and mouth were the major entry portals for the virus meant that steps were taken to combat air-borne and food-borne infection.⁵⁴ Information concerning the spread of the disease was prepared, as follows, for publication in the press.

⁵¹ WA, 21 May 1948, p.2.

⁵² WA, 25 May 1948, p.5.

⁵³ WA, 2 June 1948, p.1.

⁵⁴ WA, 26 May 1948, p.4; 27 May 1948, p.4; DN, 26 May 1948, p.1.

Carriers of poliomyelitis virus are likely to broadcast infection by sneezing, coughing, or even talking. Food may easily be contaminated if it is within the range of the spray. At the present time it is very important that all persons who handle food should take every care that they do not contaminate it with salivary spray.

Food may also be infected by the buying public whenever it is exposed for sale. The attention of all storekeepers is invited to the necessity for protecting foodstuffs. Articles of food should not be exposed on shop counters.⁵⁵

Newspapers began to provide details of reported cases on a daily basis, with a summary each Saturday morning, rather like a list of war casualties. Items regarding polio were featured regularly, and it is clear that, whether by design of the health authority or by desire of the press, some attempts were made to play down the seriousness of the situation. In mid-June it was reported that -

Health Department considers that 43%... of the... cases of Infantile Paralysis that have occurred in this State since January 1 will make a complete recovery.⁵⁶

This report was followed by another of the visit of Dr T.W. Stubbs Brown, a polio expert from Brisbane. During a stopover in Perth Stubbs Brown was invited to inspect patients at the Infectious Diseases Branch, and speak at a meeting of the local branch of the British Medical Association. Stubbs Brown gave the assurance that, in his view, the disease was occurring in a "relatively mild form". He said -

⁵⁵ Press release, 27 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁵⁶ WA, 15 June 1948, p.4. The rate of residual paralysis in 1948 was 40%.

The cases that have been occurring in WA since the middle of January have been scattered as regards time and location... Therefore it would be unreasonable to consider the disease to be of epidemic proportions, especially when compared with past epidemics in the Eastern States of Australia.⁵⁷

Stubbs Brown was of the opinion that the practice of closing schools had little effect on the spread of the disease. His view was that epidemics usually occurred in the summer months when children were on vacation, a signal that it was in the fraternisation of children from different groups that infection most frequently occurred.

Such divisions in expert opinion were not confined to polio but, during the first serious epidemic experienced in Western Australia, they exacerbated the degree of confusion felt in the community as people endeavoured to negotiate their way through the threats, restrictions and mixed messages they were receiving. Letters from the public, which sought advice or expressed concern at actions being taken, became a common item in the newspapers. For example the *Daily News* published an "Opinion" column headed "Infantile Paralysis: the people are asking about it" in which were reproduced five of the many it had received.⁵⁸ There was suspicion that information concerning polio was being suppressed, a lack of confidence in the policies designed to control spread of the virus, and a request for specific direction. A month later a follow-up selection of similar opinions was presented in the same column.

⁵⁷ WA, 19 June 1948, p.2.

⁵⁸ DN, 5 June 1948, p.2.

Questions were raised about when "concrete action" would be taken to combat the epidemic and why, since adults were also susceptible, theatres and dance halls were not closed, and what to do about flies and food. O.W. of North Perth, almost certainly Olga Wignall who is quoted in Chapter 2 above, wrote -

Flies, food and fingers are all-important factors in our health, and in the present paralysis outbreak medical authorities emphasise this again and again. But we are told that the cost is too great for a campaign against paralysis in the form of extensive disinfecting. Is not a pennyworth of prevention worth a pound of cure? Is any cost too great in order to protect our children?

We should also have placards in every school illustrating the close relationship between of flies, food, and fingers, and why hygiene rules must be observed.⁵⁹

Later research was to show that O.W. had solved the polio infection puzzle. But the authorities remained impervious. The *Daily News* reported Commissioner Cook declined to comment on the letters, and the Minister of Health declined to read them.

On the eve of a two day conference of Health Inspectors that was held in July, the state president of the British Medical Association stated that he expected the outbreak of polio to decline shortly.⁶⁰ The notification papers for the Conference did not list polio as a subject to be discussed, but the Commissioner gave a comprehensive account of the steps being taken to control the

⁵⁹ DN, 6 July 1948, p.2.

⁶⁰ DN, 7 July 1948, p.4.

disease.⁶¹

The *West Australian* reported on the conference under the by-line "Dr Cook Says Most Persons Resistant To Disease". The Commissioner illustrated that many people were resistant to polio, pointing out that cases were rare amongst nurses and doctors, and non-existent amongst health inspectors whose duties in quarantining and spraying exposed them to serious risks.

The problem of "carriers", people in whom the virus was present, and who could spread it but showed no signs of polio, was a source of anxiety. The Commissioner pointed out that there was no medical means to identify them, so nothing could be done about their presence in the community. He openly admitted that the policy of quarantining children was of doubtful value - a concession to convention, he said, and "not worth a tinkers cuss".⁶² Having undermined the policies of his Department in this way, the Commissioner included in his speech the reassurance that "from figures published of other outbreaks... it would seem that fairly soon we will pass again into the daylight".⁶³

The *Daily News* put the Commissioner's talk in an entirely different perspective, a disparity which would not have assisted in clearing up confusion. Under the by-line "WA has low resistance

⁶¹ Notice, undated, but for Conference to be held 8-9 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁶² WA, 9 July 1948, p.5.

⁶³ WA, 9 July 1948, p.5.

to paralysis" it was reported that he had stated that people in Western Australia had not had the opportunity to build up resistance to the polio virus, which meant that an outbreak in the state would probably result in more infections per capita than had occurred in the USA.⁶⁴ On the basis of American experience there would be at least 100 cases in Western Australia, and to date 110 had already been reported.⁶⁵ At this stage, the figures were the worst on record, but as yet the ratios of paralysis and death per rate of attack were not particularly alarming.

While the two newspapers took entirely different lines, it appears that the CPH was following the wisdom of his advisors and, like Stubbs Brown, may have been making another attempt to pour oil on troubled waters. Some weeks later another advisor, Dame Jean Macnamara, may have been pointing to a trend to play down or minimise the significance of the epidemic when she made the observation that "mild" did not mean "unimportant".⁶⁶

Unfortunately for everyone July became the worst month of the epidemic, with sixty cases recorded, including several tragedies. A young man from Bruce Rock, and young Perth mother with her new born child, died.⁶⁷ A week later another pregnant mother, already in an iron lung, was expected to suffer the same fate.⁶⁸

⁶⁴ Twenty cases per 100,000 was the rate in the USA he quoted.

⁶⁵ *DN*, 8 July 1948, p.5.

⁶⁶ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.23.

⁶⁷ *ST*, 11 July 1948, p.1.

⁶⁸ *ST*, 11 July 1948, p.1.

A month later the number of cases began to decrease, providing welcome relief and raising hopes that the epidemic had run its course. By now the Public Health Department was more cautious and, though suggesting the worst of the outbreak might be over, advised against the relaxation of precautions. When questioned on the subject the Commissioner wisely refused to predict the level of attack that might occur in the approaching summer.⁶⁹

Flies were suspected of being one of the major agents in the spread of polio and those who allowed flies to congregate and breed were prosecuted. In one such case, reported under the by-line "Court told of polio Menace", the Subiaco Health Inspector was reported as stating that "the fight against infantile paralysis was directed mainly against flies, which were thought to be germ carriers".⁷⁰

Suspicion of flies was applied particularly to places where children gathered and were required to use unsewered toilet facilities. Five reported cases of polio in South Perth, home of the Zoological Gardens, gave the local Road Board an opportunity to advise the State Gardens Board that it believed the presence of twelve unsewered earth closets at the Zoo represented a risk to children. The Road Board seized the moment and recommended the Zoo be closed until sewerage connections could be made.⁷¹ In 1954 the

⁶⁹ WA, 4 August 1948, p 2; 19 August 1948, p.2.

⁷⁰ DN, 5 October 1948, p.5.

⁷¹ WA, 24 June 1948, p.5.

Como state school, located in the same local government area, was used for a comprehensive study of the relationship between the spread of polio and the use of sewerage toilet facilities.⁷²

Spraying with DDT was regarded as an effective fly control measure. A method widely used in Western Australia was to regularly spray all school buses, school premises and public transport vehicles with a solution of 5% DDT powder mixed with a solution of kerosene and water. Spraying the schools involved a significant logistical exercise, since the municipal area covered by Perth City Council alone included twenty State schools and twelve kindergartens. The twenty-three denominational schools within the bounds of the Council engaged contractors to fumigate their premises once per month,⁷³ while public transport was treated daily.

A later generation would have demonstrated in the street at such a use of the chemical, but at the time DDT was highly regarded. The Public Health Department knew of the dangers of handling DDT and issued instructions accordingly. The method employed, which was of questionable value, must have been very inconvenient for the Tramways and Ferries Department and their patrons. The Department was fastidious in its requirements. The Assistant Commissioner, Dr A.N. Kingsbury, wrote:

⁷² The results of the survey are discussed below at p.237f.

⁷³ WA, 12 August 1948, p.2.

With reference to the frequency of spraying of trams during the present outbreak of Poliomyelitis, I have to invite your attention to the fact that the film of DDT left after spraying will quickly be removed by the clothes and boots of passengers. For this reason it is desirable that the daily spraying of trams be carried out.⁷⁴

The member of the public who, tongue in cheek, suggested that men and women should smoke on public transport because tobacco smoke, particularly from pipes, provided resistance to the polio virus, may have had an equally useful solution to the problem. The correspondent may also have known that during the outbreak of "Spanish" Influenza in Australia 1912-1919, similar suggestions were made and some travellers who were quarantined were subjected to fumigation by smoke.⁷⁵

Members of the public self confidently offered their views on the possible cause of polio to Commissioner Cook. Some ideas were food based, others were hygiene related, and some included a degree of class consciousness. A woman wrote -

May I suggest that a possible factor in the spread of Infantile Paralysis is the banana. Not particularly the fruit itself, but the skin.

During the war years when bananas were scarce or unprocurable Infantile Paralysis was at a low incidence. As soon as the banana trade increased so did the disease.

Can it also be a co-incidence that very often the disease appears in the homes of professional people who may be considered able to afford a regular supply of bananas in the daily budget?

Would it be too costly an experiment to prohibit the

⁷⁴ Memo, 7 July 1948, Assistant CPH to Manager, Tramways and Ferries Department, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁷⁵ McQueen, H. "The Spanish Influenza Pandemic", in Roe, J. (ed), (1976). p.135.

importation of bananas for a given period, say three months, and tell the public why it is being done? Since no one knows very much about the disease my suggestion may not be so far from the truth, and is worth trying. Who knows from whence the simple remedy may appear? Perhaps this is it.⁷⁶

The Commissioner's office was curt in reply,⁷⁷ but a mother from the country offered another view which the Department took more seriously.

I should like to give you my opinion on this terrible disease, that we have with us in WA and its causes. (Infantile Paralysis). My idea is the cause comes from the (Pig) which are subjected to (Paralysis) as the pig has a germ which attacks the nervous system muscles and sinews, which is detrimental to human life, and should be carefully watched, for Paralysis in the flesh, at butchers shops. And again (Margarine) is made from Hog fats, (lard) and it finds its way into pastry and cake's shops, perhaps a few hints in our WA paper of this note might do some good for the public to read. If you should think fit, I could give a lot more things on this subject, if you would care to have them.⁷⁸

The connection with margarine was ignored, but the link between animals and paralysis struck a cord with the Public Health Department, which forwarded the letter to the Minister for Health with a note.

[this] letter raises an interesting point. In addition to the pig, other animals are liable to illnesses of which paralysis may be a feature, horses, sheep, dogs, etc. As far as our present knowledge goes, there is no connection between any of these diseases and poliomyelitis in the human. There could be no justification for the banning of pork or

⁷⁶ Letter, BM to CPH, 29 June 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

⁷⁷ Letter, CPH to BM, 9 July 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number. "Receipt is acknowledged of your communication of 29th ultimo, regarding Infantile Paralysis".

⁷⁸ Letter, ES to Premier, 25 June 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

margarine.⁷⁹

Cows featured again in letter from a woman who had lived in the south west of the state where cattle sometimes fed on the native zamia palms. She wrote -

Some years ago I lived in Greenbushes WA and saw cows crippled on hind quarters from eating native palms. I thought perhaps their milk might have something to do with the Infantile trouble. These cows ate Palms on new country where a fire went through. It was pitiful to see them trying to get up when they lay down. Thought this might help.⁸⁰

In reply the Commissioner politely pointed out the flaw in the argument. Once more scientific reasoning triumphed over popular logic.

I have to acknowledge with thanks the receipt of your letter... containing your interesting suggestion. I was unaware of zamia poisoning among cattle but it seems very unlikely that the poison, excreted in milk, could cause poliomyelitis. The disease occurs in so many countries where the zamia palm does not grow and at present there is so much good pasture available for our cattle here.⁸¹

The possible link between ice cream and polio, a hardy annual, was raised in a novel way by another contributor.

I am writing with reference to Ice cream being a possible cause of infection (Paralysis).

I think the method of serving is at fault, as every time an Ice

⁷⁹ Letter, CPH to Minister, 14 July 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

⁸⁰ Letter, JS to CPH, 7 September 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

⁸¹ Letter, CPH to JS, 10 September 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

cream is served the servers are placed in a basin of water. This water at times is very dirty, almost as thick as Ice cream and being similar to milk this exposed (milk-water) is open to flies and dust.

I thought this might be inquired into and if this water was sent to an analyst it might give some results.⁸²

Lay members of the public were not the only ones who took an interest in finding a solution to polio. A veterinarian from a country town offered his views regarding the effect of mould, based on his observation of sickness in animals.

This terrible disease of the Humans, Infantile Paralysis, is very similar to a disease that flourished in this state 10-15 years ago in the horse. Fine, strong animals would be stricken down without warning, never to rise again, except with the aid of slings. Very few recovered, and if left down would die in 24-36 hours. This complaint is caused by a mould in the hay. It had a bluish tinge, sometimes in great quantities and at other times just very light traces....

There is a possibility that this disease is being introduced from a mould or fungus in some breakfast cereals - some of the prepared varieties that have been treated in the factories. A check on the household on this subject should be very important. Large families which use a packet in a day of so would be alright. But the family which only used them occasionally may have them opened for weeks or months. These preparations are never cooked by the householder, but are eaten with cold milk, or at the best warmed a little.

Infantile Paralysis first started in the USA. So did breakfast foods. Americans are great users of cereals. There is a possibility that this little message might bring to light something worthwhile....

Furthermore, I had a packet of cereal opened in the house for about 3 months. There was a trace of mould on them so I fed them to a pair of Turkeys last week and both died with paralysis in four days.⁸³

⁸² Letter, unsigned, 10 September 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

⁸³ Letter, HJB, 9 September 1948, BL, ACC 1003, AN 120/4, 944/1948, no page number.

As the polio epidemics continued, so did the flow of suggestions such as these. Everyone thought that they had a special insight to bring, and made their views known to the Public Health Department in the hope that theirs might be the idea that would finally led to the defeat of the polio menace.

Picture theatre managers were particularly troubled by the Department's discouragement of gatherings involving children. The Motion Picture Industry Public Relations Council of WA sought, and was granted, a meeting with the Minister and the Commissioner of Public Health.⁸⁴ At the meeting, the Industry representatives stressed that their establishments were very well looked after and were sprayed regularly with DDT. They were at a loss to understand why the official line seemed to target their venues when people were allowed to congregate freely for live theatre shows and church services. In discussion the Minister wisely declined to single out motion picture theatres from other venues but stressed that it was generally good practice for members of the public to avoid large gatherings of people. The Minister indicated to the deputation that he had endeavoured to minimise "scare" publicity and hoped that, with the decline of the epidemic, community fears would also subside. The delegation, which

⁸⁴ Letter, 9 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

revealed that it considered TB a greater threat than polio,⁸⁵ in turn offered to assist the Minister by showing slides regarding the destruction of flies, and by publicising similar material affecting the health and well-being of the community. Picture theatres would would thus be a partner with the Minister in the provision of health education for the public, goodwill would be restored, and above all the present boycott would be reversed. The meeting concluded happily, although the Minister may have said more than intended when he "thanked the Council for its kind offer re propaganda".⁸⁶

The prevailing perception was that the Public Health Department was inconsistent in its attitude to quarantine, travelling, and the congregation of crowds. These matters remained contentious, and a temporary decline in the number of reported infections during August, September and October did not mean the community relaxed. As the time for the school holidays approached, a group of teachers from Albany wrote to say that, since they had contact with children through their work, perhaps they should not move around during the holidays, and also suggested the date of the August school holidays might be changed.⁸⁷ The CPH wrote to the

⁸⁵ Porter, R.M. and Boag, T.C. (Undated). *The Australian Tuberculosis Campaign 1948-1976*, The Sir Robert Menzies Memorial Foundation. It is notable that during these months considerable media coverage was also given to the presence of TB in the community. In 1948, 325 cases of Pulmonary Tuberculosis were reported in Western Australia, from which 157 deaths resulted. Although the death rate from TB was declining in WA, the number of reported cases in 1948 was the highest for twelve years. That same year the Tuberculosis Act (1948) was passed, an initiative of the Federal Government which linked the Commonwealth and the States in a campaign that succeeded in controlling the disease.

⁸⁶ Report, 20 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁸⁷ Letter, 27 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

Education Department with the request that it consider a change of dates but, after discussion, the normal programme was upheld.⁸⁸

Spring normally brought a round of picnics, carnivals, inter-school sports and Agricultural Shows and people wanted to plan their traditional pastimes. The Commissioner was frequently consulted regarding the wisdom of travelling between towns, taking holidays away from home, holding sports days, annual picnics and end of year celebrations. The advice of the Public Health Department was to curtail such activities, but it did not ban them outright.

A typical example is the case of the Midland Railway Company Employees' Picnic Committee. The Committee, having sought advice from Commissioner Cook, initially decided to shelve their plan for an annual picnic at Gingin, a small town north of Perth.⁸⁹ Four weeks later fresh advice was sought from the Commissioner. The number of reported polio cases was in decline and the committee believed the decision to abandon their function had been influenced by a conservative minority from Gingin itself who did not want an influx of strangers in their district. The committee had since found that -

...quite a number of Gingin residents travel daily to Perth per bus and also it is estimated that approximately 60% of the persons residing in that district will attend the Royal Show

⁸⁸ Letter, 2 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁸⁹ Letter, 31 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

which is held about two weeks prior to the date for which the Picnic had been arranged... also a large motor racing exhibition is to be conducted... only eight miles north of Gingin.⁹⁰

The people equivocated, and so did the Public Health Department.

Despite its promotion of the policy of avoiding crowds and large gatherings of people, there is no evidence of any direct attempt to have the Royal Agricultural Society (RAS) abandon the holding of the 1948 Royal Show, and Children's Day was not banned. The Department predicted the Show would result in a rise in the number of cases of polio, and later recorded the result -

Poliomyelitis infections during the last few days have shown a tendency towards increase compared to those of recent weeks. This increase was not unexpected as it was anticipated that the new and extensive contacts between unprotected persons and carriers associated with mass attendances at the Royal Show would have this result. It is not necessary for the victims themselves to have attended the Show, but the increase in the number and the wide dispersal of healthy carriers occasioned by this mass migration, will have exposed these persons to the risk of infection even though they themselves have remained in areas hitherto unaffected.⁹¹

The RAS appears to have been beyond reproach. There is no evidence of correspondence on the matter, and no mention of the subject is to be found in the minutes of the Society.⁹²

⁹⁰ Letter, 27 September 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁹¹ Memo, 22 October 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page; *Public Health 1948*, (1949). Appendix XV, p.62, BL, 614.09 WES.

⁹² Information provided by Mr W. Gable. See also *Public Health 1948*, (1949). Appendix XV, p.63, BL, 614.09 WES.

The Public Health Department was more assertive with other groups and used the adverse outcome following the Royal Show to support its case. In November the Commissioner wrote to all Church leaders to urge that -

In view of the continued incidence of Poliomyelitis throughout the State, it is considered inadvisable for Christmas parties or festivities to be conducted of a nature which might bring into association children of different Sunday Schools or groups.

It is regretted that the cancelling of these functions will deprive many children of an enjoyable Christmas festivity but you will, I am sure, appreciate the importance of co-operation with this Department in its endeavour to reduce the incidence of the epidemic.⁹³

This was also the season for inter-school sports and the Assistant Commissioner wrote to the Education Department to say that -

Following the Royal Show in Perth there has been a considerable increase in Poliomyelitis incidence. It is considered that, until further notice, all School Sports meetings should be cancelled.⁹⁴

This was a sensible and necessary measure to suggest, but it extended only to the holding of inter-school sports carnivals, not to sports days involving children from within a school.⁹⁵ Comment included a light-hearted cartoon by Saw [Figure 12] captioned "They want to get IN."⁹⁶ A crowd of children were

⁹³ Memo, 10 November 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁹⁴ Memo, 28 October 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

⁹⁵ WA, 3 November 1948, p.2.

⁹⁶ DN, 3 November 1948, p.2. Original emphasis.

depicted waiting to get into a state school, barred by gates boarded up with signs which read "ban on inter-school sports".

Under the by-line "Let's get right into this polio battle", Mary Ferber, who advocated stronger actions by the Health Department, began her "Common sense" column with "I took my children to the Royal Show this year - because nobody told me not to". Due to the course the epidemic had taken she believed the public would now be receptive to strong action in relation to swimming carnivals and inter-school sports days, and called upon the Health Department to state clearly what should be done. In her opinion "all that parents want to know is what to do, and I think Dr Kingsbury has only to say what should be done for general obedience".⁹⁷

A Doctor from the leafy, comfortable suburb of West Perth responded. The Health Department had always indicated, publicly and to all who asked, that the congregation of large numbers of people from different areas would expose them to the risk of polio infection.⁹⁸ He obviously felt that everything necessary had been said on the subject.

Once again the activities of the YAL which, unlike the Scouts, resisted quarantine regulations, aroused controversy and exposed the Health Department to further criticism. A proposed Spring tour of the Eastern Wheatbelt and Goldfields by a YAL concert

⁹⁷ *DN*, 6 November 1948, p.2.

⁹⁸ *DN*, 11 November 1948, p.2.

party evoked a fierce response from residents of the towns on the itinerary.⁹⁹ The Commissioner, in reply, restated the Department's position -

...I have to inform you that this Department is unable to prohibit the proposed tour of the YAL Concert Party but the League has been advised strongly to postpone the tour.¹⁰⁰

Vigorous correspondence was exchanged between the Commissioner and the Secretary of the YAL. The Commissioner wrote "I venture to repeat my telephoned advice that the deferment of the tour is highly desirable at the present time".¹⁰¹ In a lengthy reply the YAL assured the Commissioner that it was aware of the seriousness of the situation, because production of the show to be taken on tour had begun in May, when the epidemic became more intense.

The belief that the winter weather would stop the progress of the disease had led the YAL to continue rehearsals, in the expectation that the epidemic would have subsided by August, when the tour was to commence.¹⁰² The YAL found showed it had found support for this plan in the announcements of the Commissioner himself, coupled with the rate of reported cases which declined in August. The YAL pleaded willingness to co-operate but pointed out not only

⁹⁹ Letters from Cunderdin, Kellerberrin, Trayning and Kalgoorlie, in BL, ACC 1003, AN 120/4, 944/1948.

¹⁰⁰ Letter, 10 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

¹⁰¹ Letter, 30 July 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

¹⁰² Letter, 5 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

the hours of rehearsal spent in preparation for the tour, but the "fair amount of money that has also been extended towards production and advance arrangements, together with publicity."¹⁰³ The writer weighed the risks to human life, then drew the attention of the CPH to two more anomalies. Another youth group would travel over the same route as the YAL to bring entertainment to the country, and a group of forty boys had been permitted to travel as a football team from Western Australia to Queensland.

Barring a clear veto from the Commissioner, the YAL obviously considered its tour would go ahead. The League underlined its willingness to co-operate with an offer to have all the boys in its party medically examined by a doctor approved by the Public Health Department, and promised that all theatres used on the tour would be sprayed with DDT prior to each performance. In his penultimate paragraph the YAL Secretary wrote -

...it appears to me that my organisation is being unduly picked out when one considers the number of people who will be visiting the goldfields from the metropolitan area for the racing carnival at the same time, or a little before our proposed visit.¹⁰⁴

In his response the CPH pointed to the difficulties of predicting the course an epidemic would take, and stated that, since polio carriers could not be detected, a medical examination of the tour

¹⁰³ Letter, 5 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

¹⁰⁴ Letter, 5 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

group would serve no purpose.¹⁰⁵

Correspondence to the Commissioner over the YAL tour is evidence that some rural people were deeply afraid of their children having contact with children from the metropolitan area. Although the number of cases of polio from the country was less than from the city (130 as compared with 181), on a per capita basis the rate of infection was far higher. Any natural suspicion country people had regarding contact with city children was strengthened by the view, occasionally expressed by Public Health Department officials, that country children were more susceptible to polio than their city counterparts.

A report regarding the residents of the south west town of Bridgetown, not far from Noggerup, showed that, while they were nervous of children returning home from city boarding schools and bringing polio with them, they were acting to protect themselves.

As a precaution against the intrusion of infantile paralysis, the Bridgetown Road Board proposes to disinfect all schools and school buses regularly. It is seeking information as to the most suitable type of disinfectant. While there has been no case reported in the district, the Board is worried because a number of children have been brought home from schools in Perth.¹⁰⁶

A result of the 1948 epidemic in Western Australia was that there was an urgent need for systematic, on-going after-care for a large

¹⁰⁵ Letter, 6 August 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page.

¹⁰⁶ WA, 14 June 1948, p.5.

number of polio survivors. Two women doctors from Victorian, Dr Elizabeth McComas and Dame Jean Macnamara visited the state to investigate and report on Poliomyelitis and Cerebral Palsy in Western Australia. The report, which reflected Dame Jean's capacity to compare the facilities developed in Victoria with what she found in the West was highly critical and made wide ranging recommendations. Dame Jean favoured the immobilisation method of treating polio and was strongly opposed to active the methods, including hydrotherapy, introduced by Sister Kenny.¹⁰⁷ Examination of a cross-section of patients enabled Dame Jean to see that some of Sister Kenny's methods were being used in Western Australia, and she did not approve.¹⁰⁸ In a covering letter she wrote -

I have been saddened beyond expression by the situation in Perth, and hope that you will see that these people are cared for. If I can help in any way from Victoria I will be glad to do so.¹⁰⁹

The report began with the observation that, up to this point, Western Australia had been the most fortunate of the Australian states. In the period 1925 to January 1948 there had been 207 cases of polio in Western Australia whereas in the same period in Victoria, for example, there had been 3,800 cases, half of which had occurred during the 1937-38 epidemic.¹¹⁰ The rapid increase

¹⁰⁷ Willis, E. (1979). "Sister Kenny", *The Australian and New Zealand Journal of Sociology*, Vol 15, No 3. p. 31.

¹⁰⁸ McKellar Hall, R.D. (1983). *Reflections*, p.47. See Chapter 4 above.

¹⁰⁹ Letter, 20 August 1948, p.41. BL, ACC 1003, AN 120/4, 1190/1948.

¹¹⁰ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.12.

in demand for hospital beds, qualified staff and adequate after-care facilities, now urgently confronting Western Australia, had been faced earlier by other states, and this was an opportunity to learn from their experience.

Although health experts in Western Australian had kept themselves informed regarding developments in other states, the sadness Dame Jean felt arose from her belief that the situation, as she found it, was ill-prepared and significantly under-resourced. In her view these factors doomed many of the surviving children to life-long suffering. The number of cases was comparatively small but the lack of suitable staff and facilities caused her to say -

...this epidemic already almost warrants declaring a state of emergency, if efficient accommodation and personnel cannot be obtained AT ONCE by other means.¹¹¹

Facilities in Western Australia were inadequate and, in her view, cripples were being created, not rehabilitated.

The recommendations proposed covered a wide range of subjects; boiling of milk and water for human consumption, increasing the temperature for pasteurizing milk used in ice-cream, regulating the length of time for storing ice-cream, increasing publicity regarding personal hygiene, ensuring the cleanliness of toilets and the proper disposal of sewage, spraying for flies, using of the ocean for swimming instead of swimming pools, and recognising the impact

¹¹¹ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.24. Original emphasis.

of fatigue in the early stages of infection. She also recommended an increase in the quantity of respirators and suction apparatus modules available, the installation of Hubbard saline baths, increasing the number of nursing and physiotherapy staff at the Infectious Diseases Branch, appointing of a Medical Registrar at the IDB for the duration of the epidemic, and establishing a splint-making service.

Dame Jean's real concern was that there was no margin of safety in Western Australia. She called for increased accommodation which would cater for present after-care patients and also could provide for the demands future epidemics would impose.¹¹² In her view, the Commonwealth Government should be requested to make beds available at the Hollywood Repatriation Hospital.

More time and energy needed to be spent on the after-care of polio survivors. She wrote -

At the stage the [body] temperature falls the majority are potential cripples only. Many I have seen in Perth have spent several months already in the slow but effective factory which turns the potential cripple from poliomyelitis into the finished cripple. Others mildly affected, in whom complete recovery of a life of full efficiency was a certainty if care had been provided, are not receiving that care and their disability is becoming permanent and increasing.¹¹³

The lessons that had been learned through repeated epidemics in Victoria, Dame Jean said, were that even mild cases should be

¹¹² Report, BL, ACC 1003, AN 120/4, 1 190/1948, p.19.

¹¹³ Report, BL, ACC 1003, AN 120/4, 1 190/1948, pp.22-23.

regarded as important as they could soon be restored to full health, given the application of the correct treatment at the right time.¹¹⁴ And there needed to be more forward thinking; "plans for the care of patients should be made in the intervals between epidemics".

The plans offered by Dame Jean were, on her own admission, not aimed at providing a maximum level of care but at covering the present critical situation. She concluded -

The suggestions I have made may seem expensive - more than West Australia can afford. I would ask you, Mr Abbott - can West Australia afford not to do this? Can you afford to deny the mothers of young families and the young people their chance to a life of usefulness, to allow the little children to deform without attempting to cry halt to the crippling process?¹¹⁵

The report was forwarded to the Public Health Department with the note that it also had the imprimatur of the Consultant Physician of the Alfred Hospital in Melbourne.¹¹⁶ Dame Jean also used the occasion to suggest that Western Australia could add its weight to that of other state authorities who were seeking to lobby the Commonwealth for more assistance in combatting polio through the Federal body for funding medical and scientific research, the National Health and Medical Research Council.¹¹⁷

¹¹⁴ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.23.

¹¹⁵ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.30.

¹¹⁶ Letter, 23 August 1948, BL, ACC 1003, AN 120/4, 1190/1948, p.40.

¹¹⁷ Report, BL, ACC 1003, AN 120/4, 1190/1948, p.12.

The consultative committee of doctors considered it at a special meeting, and recommendations for action were made to the Minister.¹¹⁸ After due consideration the Premier wrote -

CABINET desires to give every assistance to the Commissioner of Public Health in his work for the after-care of sufferers from poliomyelitis and is prepared to consider any practicable proposals to improve the conditions...¹¹⁹

The Commissioner replied in detail, requesting a full-time splint-maker, the early completion of additions to the After-care Wards at the IDB, the formation of an After-care Committee of philanthropic laymen to raise funds for the work, and the addition of two members to the consultative committee.¹²⁰

Steps were taken immediately to employ a splint-maker and, on 20 February 1949, George Clarke arrived from Melbourne to commence work, first at Royal Perth Hospital, and then in a workshop provided at Princess Margaret Hospital.¹²¹ In connection with the plan to expand the IDB, the opportunity arose to provide an additional facility. The "Golden Age", a de-licensed hotel owned by the Swan Brewery Company in Leederville, an easy distance from Princess Margaret Hospital, was purchased for the sum of £5,500 and renovated for the specific purpose of housing polio after-care patients.¹²²

¹¹⁸ Report, 27 September 1948, BL, ACC 1003, AN 120/4, 1190/1948, pp.99-100.

¹¹⁹ Memo, 1 November 1948, BL, ACC 1003, AN 120/4, 1190/1948, p.117.

¹²⁰ Memo, 9 December 1948, BL, ACC 1003, AN 120/4, 1190/1948, p.128.

¹²¹ WA, 18 February 1949, p. 2; 23 February 1949, p.5.

¹²² Letters, 5 March 1949; 31 March 1949, 1 September 1949, BL, ACC 1003, AN 120/4, 322/1949, pp.1,8, and 37.

Another scheme that was put forward to assist with after-care was to convert a natural hot pool, located on the shore of the Swan river in Dalkeith, for therapeutic purposes.¹²³ Plans were discussed for several years but, despite considerable interest being shown, it proved impossible to negotiate the necessary approvals and nothing eventuated. The "Hot Pool" was a nocturnal meeting place for controversial skylarking and it was eventually shut down completely.

Polio research continued around the world. For more than three decades polio had been identified as a virus, and now it had been photographed through an electronic microscope.¹²⁴ But mystery still surrounded its means of transmission. The occurrence of five cases of polio in the suburb of Osborne Park, in September, was seen by politician and medical practitioner Dr J. Gordon Hislop, MLC, as providing an opportunity to do research on the subject. He recommended to the Minister that a three member committee be set up to manage the project, that the public be invited to contribute funds to "The Poliomyelitis Research Fund of WA" and that a young physician be engaged to do the research.¹²⁵

The *West Australian* supported Dr Hislop's plan with a leading article which touched on Dame Jean Macnamara's suspicion of

¹²³ Letter, 6 December 1948, BL, ACC 1003, AN 120/4, 106/1949, p.3.

¹²⁴ *ST*, 26 September 1948, p.3.

¹²⁵ Letter, 8 September 1948, BL, ACC 1003, AN 120/4, 1249/1948, p.1; *DN*, 10 September 1948, p.2.

unscalded dairy products, expressed in an article in *The MJA* of December 1947. Osborne Park was home to several dairies and the editorial offered the view that it could be a suburb where a greater than normal amount of raw milk would be consumed, thus providing fertile grounds for the investigation.¹²⁶ Dr Hislop's suggestion elicited a flurry of responses. Correspondents wrote to the papers in support and several Rotary clubs agreed to receive donations.¹²⁷ Later the editor wrote another leading article in which the virtues of conducting such research in Western Australia were extolled. The article recognised the potential for research to yield nothing, or only negative results, and acknowledged that compared to the USA, or even the state of Victoria, Western Australia had a lot of ground to make up. However, it was hoped that -

...some factor scarcely apparent in the United States or Victoria may show up more boldly here with our different soil, climate and other conditions, including the sparseness of our population and the wide distribution of the complaint. We may have a contribution to make, and if we have it is well worth making.¹²⁸

Not wishing to create the impression that the Public Health Department was in any way lacking in its attention to this subject, the editor hastened to add -

It should be emphasised that the sponsoring of this appeal and the giving of donations to it constitute no reflection on the technical officers of the State Department of Public

¹²⁶ WA, 6 September 1948, p.2.

¹²⁷ WA, 8 September 1948, p.5; 11 September 1948, p.4.

¹²⁸ WA, 13 September 1948, p.2.

Health. That Department is, no doubt, deeply concerned and doing what it can, but it is not overstaffed and it has much to do.¹²⁹

The editor's disclaimer was a sensible ploy because the publicity brought into focus the question of how thoroughly reports of polio were investigated by the Public Health Department, which felt the pressure of this attention. When speaking to a meeting of the Perth branch of the Liberal Party, the Minister made the point that "every case of infantile paralysis was closely investigated," and continued to say that, while experts differed in their opinion on the cause of the disease, from Dame Jean Macnamara he had learned -

...nothing about precautions that the Health Department was not aware of and on which it had not taken action... The Government has done its best to give effect to her advice.¹³⁰

A few days later, Mr Grayden, MLA for Middle-Swan, asked the Minister whether the government intended to investigate the matter as suggested.¹³¹ Mr Abbott assured the Parliament that every case, including those that had occurred at Osborne Park, had been carefully investigated under the direction of Dr Kingsbury, who had been especially trained for the role.¹³²

¹²⁹ WA, 13 September 1948, p.2.

¹³⁰ WA, 14 September 1948, p.2.

¹³¹ Western Australian Parliamentary Debates, *Hansard*, (1948). Vol.1, p.1080, 15 September 1948, BL, 328 -9412, WES.

¹³² WA, 16 September 1948, p.2; *Hansard*, (1948). Vol.1, p.1081, 15 September 1948, BL, 328 -9412, WES.

The Minister visited Osborne Park personally to obtain an impression of the procedures followed when a report of polio was made. Shortly afterwards he had to endure more questions in the House from Mr Grayden who wanted to know how thoroughly the directions of the Department were followed when a case of polio was reported.¹³³ The Minister replied that all local authorities had received instructions to investigate contacts and movements of infected persons, and that reports were double checked if necessary.¹³⁴

The public subscribed generously to the research fund and the Public Health Department approached the Medical School of the University of Adelaide to see if it would undertake the research.¹³⁵ Because of the perceived benefit to all, and perhaps in an attempt to win some points for Western Australia, Premier Ross McLarty wrote to Prime Minister Chifley to seek Commonwealth assistance.¹³⁶ Having sought the advice of the NH&MRC, Ben Chifley replied that -

...owing to the extreme difficulty in purchasing monkeys, which are essential for the carrying on of research into the poliomyelitis virus, and that, as this work is being carried out extensively in other countries where monkeys are available, it did not propose to undertake any large scale investigations into the mode of entry and prevention of

¹³³ *Hansard*, (1948). Vol. 1, 28 September 1948, p. 1345, BL, 328 -9412, WES.

¹³⁴ Memo, 23 September 1948, BL, ACC 1003, AN 120/4, 944/1948, unnumbered page; WA, 1 October 1948, p.2.

¹³⁵ Letter, 27 October 1948, BL, ACC 1003, AN 120/4, 1249/1948, p. 17; Letter, 4 November 1948, BL, ACC 1003, AN 120/4, 1249/1948, unnumbered page. There was no Medical School at The University of WA at this time. Teaching in the full M.B, B.S, commenced in 1959. See Alexander, F, (ed). (1963). *Campus at Crawley*, University of WA Press, pp.400-410.

¹³⁶ Letter, 5 November 1948, BL, ACC 1003, AN 120/4, 1249/1948, p.23.

spread of the poliomyelitis virus itself.

However, Professor Burnet of the Walter and Eliza Hall Institute of Medical Research is carrying out extensive investigations into the mode of entry of other types of viruses which can be easily cultivated in chick embryos.

The general feeling of the the National Health and Medical Research Council was that if these researches are successful, the knowledge gained will be applicable to practically all virus diseases, which will include Poliomyelitis.¹³⁷

The reply, which reflected the difficulties experienced by Australian polio researchers and the priorities chosen by the influential NH&MRC, must have been disheartening for the doctors and the state government. And it was uncomplimentary to the Western Australian initiative, revealing it as out of step with the realities and trends in other places.

Dr Hislop's plan came to nothing. The apparent significance of the multiple cases of polio in Osborne Park faded from view and efforts to recruit the services of researchers from South Australia were unsuccessful. Although nominations were received for the fund raising committee no meeting ever took place.¹³⁸ Dr Hislop wrote to the press to close the appeal and suggested that the money already donated be held in trust to assist long-term paralysis patients.¹³⁹

As the year came to a close cases of polio once more began to

¹³⁷ Letter, 8 December 1948, BL, ACC 1003, AN 120/4, 1249/1948, p.31.

¹³⁸ Letters, 23 December 1948, and 27 June 1950, BL, ACC 1003, AN 120/4, 107/1949, p.1, and unnumbered page.

¹³⁹ WA, 15 December 1948, p.2.

occur. The response to polio varied widely when it came to congregations of children. The country town of York banned children from swimming in the Avon River. Unlike the YAL, the Boy Scouts' Association abandoned its plan to send 200 boys to the Pan-Pacific Jamboree in Victoria, and The Red Cross cancelled its "gypsy fair" scheduled for Riverside Drive in early December.¹⁴⁰ Some groups cancelled plans for large gatherings of children, even from the same school. It was reported that at Pingelly, a town on the Great Southern Railway -

A public meeting recently decided that owing to health warnings issued by the Health Dept it was inadvisable to hold a Christmas party for the children this year and this was recommended to the Progress Association. The Pingelly Parents and Citizens Association has also agreed to abandon plans for a large school break-up function, but a party will be held at the school for children under supervision of the teaching staff.¹⁴¹

But other country centres went ahead with their gatherings, perhaps believing or hoping that their children would be safe because no-one from outside the district would be present. After the second wave of the epidemic had run its course the *Wagin Argus* reported on events at Ballaying, also on the Great Southern, where a one teacher school, currently enjoying its peak enrolment, had operated for over forty years.

On Saturday evening last, December 18th, the school children of Ballaying presented their first two act play in the local Hall. The scene was laid in Cinderella's Palace, after her marriage to Prince Charming. All the 22 children of the

¹⁴⁰ WA, 18 November 1948, p.4; 20 November 1948, p.2.

¹⁴¹ WA, 18 November 1948, p.4; 8 December 1948, p.2.

Ballaying School took part in the play, and great credit is due to the producer (Mr Jack Ward) and to the director (Miss Brown) as well as to the kiddies for a really excellent evening's entertainment. The Hall was filled to capacity and everyone was happy - especially the children who seemed to enjoy every minute speaking, singing and dancing around the Maypole. We hope to see more of these clever little artists when they put on their next show. Several of those present suggested that they would like to see the Concert put on in Wagin.¹⁴²

Perhaps it was thought that being so remote from larger populations the dreaded disease was unlikely to strike. And in any case, the children were all from the same school.

For the safety of children the Public Health Department recommended that Father Christmas not appear in Perth department stores. The Retail Traders' Association banned Father Christmas¹⁴³ and cancelled any functions which would have resulted in the gathering of large numbers of children.

Sunday Times artist Davies replied with a cartoon [Figure 14] which included the first representation of polio.¹⁴⁴ Father Christmas is pictured on a cricket pitch, with bat in hand. He has just been clean bowled by polio, pictured as a dark, ugly "trickster". Polio is the spoil sport who has clean bowled a long series of activities, listed on the score board, normally enjoyed during the summer. The trickster cheated many West Australian children and adults out of familiar pastimes during the summer of 1948.

¹⁴² *Wagin Argus*, 23 December, 1948 p.1.

¹⁴³ *DN*, 18 November 1948, p.1.

¹⁴⁴ *WA*, 18 November 1948, p.4; *ST*, 21 November 1948, p.4.

Although it was the Retail Traders' Association that banned Father Christmas, the action provoked Mr Marshall, Labor member for the Murchison, to question the Minister for Health. He asked whether it was -

...necessary and just to deny city children the right to be presented to Father Christmas at city emporiums, while large numbers of children were allowed to congregate at picture shows etc.¹⁴⁵

Any uncertainty that existed in the community would not have been dispelled by the the Minister's reply, which highlighted the difficulty felt by some. He said -

Although the Health Department tendered advice on the precautions to be taken to avoid the spread of poliomyelitis, it was left to the individual whether he accepted that advice or not.¹⁴⁶

An even greater degree of ambiguity is evident in the advice the Deputy Commissioner gave regarding the holding of swimming carnivals. The WA Amateur Swimming Association (WAASA) was advised by Dr Kingsbury that -

...swimming under racing conditions would not be dangerous... [but he] warned of the danger of attracting large crowds.¹⁴⁷

¹⁴⁵ WA, 24 November 1948, p.2; *Hansard*, (1948). Vol. 2, p.2625, BL, 328 -9412, WES.

¹⁴⁶ WA, 24 November 1948, p.2.

¹⁴⁷ WA, 25 November 1948, p.2.

In the light of this advice the WAASA intended to hold its swimming carnivals and reduce the size of the crowd that gathered by inviting only club supporters to attend. Such advice was the result of continued uncertainty regarding polio transmission and the Health Department's wish to persuade the public rather than enforce its will through legislation.

The frustration felt over polio was summarised in an article titled "Official Confusion on Polio". The Editor of the *Sunday Times* wrote at length, noting that there was no official force behind the requests the Department made of the public. He then detailed the inconsistencies he saw in its policies.

- * Children's Day at the Royal Show was not banned, but later it was stated that crowds gathered there had caused an increase in cases [of polio].
- * A ban was put on inter school sports, but not until some had already been held.
- * Although swimming in pools is discouraged, the official mind seems to regard it as safer for competitive swimmers to swim in lanes at a carnival.
- * Crowds at carnivals are frowned upon, but it seems all right for only club supporters to attend them.
- * In winter, people were packed together at football much closer than at the Royal Show, yet there was no suggestion that this caused any special flare-up of the disease.
- * Cases are occurring at small country towns where there are not enough people to make a crowd.
- * On a per capita basis the estimated incidence in the metropolitan area is lower than in the country. How does this square up with the crowd theories of the Health Department, particularly when children have been crammed in over-crowded school rooms, and have travelled every day

The Editor maintained that West Australians were law-abiding people and would co-operate with even irksome laws if they could appreciate their underlying logic, but these policies did not appear to make sense. But it was the public conduct of the Minister for Health, who attended a Baby Show, that drew the most severe criticism.

...is it any wonder that parents are bewildered when, after being told to keep their children away from crowds they find the Minister for Health opening a Baby Show?¹⁴⁹

The Minister said he had drawn the attention of the organisers to the advice of his department in this matter but the only excuse offered for his attendance was that he had promised to do so a long time beforehand.¹⁵⁰

More criticism of departmental policy was aired in the press. As the Assistant Commissioner, Dr Kingsbury, retired "Just a Mother" wrote -

As a mother of two young girls I am amazed at Dr Kingsbury's advice to the public about poliomyelitis. He advises us to keep children away from entertainment and Father Christmas, but he says nothing of closing hotels, where anyone can drink out of glasses, public conveniences, race and trotting meetings, speedways and lodge meetings, where men and women of all ages and health habits rub shoulders. Cannot these parents infect their children when they come home? ...I cannot see that swimming in lanes is

¹⁴⁸ *ST*, 28 November 1948, p.4.

¹⁴⁹ *ST*, 28 November 1948, p.4.

¹⁵⁰ *DN*, 26 November 1948, p.2.

any reason for having swimming contests if gatherings in public are dangerous. Should I take my children to swim in public-infected water or keep them at home getting fretful and begging me to go for a swim as we did last year?¹⁵¹

The prerogative trained male experts assumed in the science of polio prevention was strongly challenged by a woman who, in describing herself as "Just a Mother", left no doubt where she thought the real wisdom on the subject could be found.

A frustrated Commissioner rebutted strongly, indicating the difficulties faced by the department. Responsibility for the final decision over the congregation of children fell to parents, but the Commissioner felt they needed the courage to choose.

If parents had not the courage to make a decision about poliomyelitis precautions unwelcome to their children, that was no reason for an acrimonious attack on a department which had given advice that they were not prepared to accept... The Department has consistently advised against children attending parties and similar places of public assembly where they will come in contact with adults and children who are strangers to them... it should be possible for all organisers of parties to make a decision for themselves whether or not the function will be held... It is an indication of a wide-spread incapacity to make a bold decision or to accept responsibility for an unwelcome decision that the fate of almost all such parties is referred to the department for decision, presumably so that the responsibility for an unwelcome decision shall rest on other shoulders and so that the resentment of those who are disappointed shall be diverted to the department, represented as a kill-joy, rather than countered by the plea of public interest. Failure to conform to the department's advice during the Royal Show led to a rise in the incidence of the disease and... a section of the public complained that the department should have given specific advice against attendance at the show. Specific advice against attendance at Christmas parties is now stigmatised as unwarranted

¹⁵¹ WA, 1 December 1948, p.2.

The department expected parents to be bold in a way that it was not prepared to be; they were expected to choose to keep their children away from large gatherings which it refused to ban. Some parents saw themselves as bold in choosing to allow their children to attend some gatherings, such as their end of year Junior and Leaving Certificate examinations.¹⁵³

Saw, captured the mood in his cartoon "Punch it Home" [Figure 14],¹⁵⁴ in which, for the first time, he now ventured to represent polio as an image. The scene is a boxing ring in which polio, a masked male pugilist, whose image is reminiscent of the Phantom, "the ghost who walks", hits out at the 'Health Department' who is on the ropes, and because his head is trapped is looking away from his opponent.¹⁵⁵ The ropes are reminiscent of the red tape that features in some of Saw's earlier cartoons. The averted gaze and the constraint of the head suggests a level of paralysis in the "Health Department" as it applies the measures currently in use against polio. Behind his back "Health Department" is holding one gloved fist, marked "power of enforcement", while with his naked left hand he holds up in front of polio a large sheet of paper on which are the headings "Advice, Warnings, etc...". The public, a typical 1940s male working man dressed for an outing, who stands

¹⁵² WA, 1 December 1948, p.2; ST, 5 December 1948, p.4.

¹⁵³ WA, 7 December 1948, p.16.

¹⁵⁴ DN, 1 December 1948, p.2.

¹⁵⁵ WA, 29 August 1996, 'People' supplement p.3 "The Phantom" first appeared in 1936.

as the side of the ring and acts as coach to the "Health Department", says - "You might do better if you stopped waving your left and hit out with your right".

The chorus against the use of a persuasive style of management had reached a pitch. Although the public did not know what specific actions would ensure its safety against polio, Saw believed it was weary from the lack of assertive behaviour demonstrated by the authorities.

Criticism continued. "A Concerned Observer", who claimed to be a trained scientist wrote in support of "Just a Mother". After giving a brief resume' of the current understanding of the characteristics and dangers of the polio virus, the author showed that this knowledge presented some serious challenges to the policies of the Public Health Department, especially with respect to crowds and gatherings. He then fixed the leadership firmly in his sights as the ones responsible for the spread of polio -

People of integrity in all stations are beginning to feel the doubts and misgivings so clearly expressed by "Just a Mother" in her plain admission and plea of bewilderment." ...When I repeatedly observe the the filthy conditions of city streets and railway carriages, when I see the city council dust cart regularly spreading dust and leaving the streets unclean, when I find filthy dust blowing at me and into exposed food on all hands, when I realise that public money - our money, diverted compulsorily from our provision for children's needs - is being paid to those who, through inept direction or personal inefficiency, or both, are "messing things up," perhaps I may be pardoned for feeling that the spread of poliomyelitis - or disease of any kind - is not so much the problem of individual apathy as of wise

The Health Department did not allow these criticisms to pass. After the *Sunday Times* published an article titled "Official Confusion on Polio", the Commissioner went on the attack, asserting that any clear-minded person could see that there was no official confusion in relation to polio, and restated the position.

The Department has... consistently issued the advice that unnecessary migration and attendance at public assemblies should be avoided. It is discretionary with the individual or with his guardian whether this advice, which is never varied, is accepted or not.¹⁵⁷

He reiterated his point that, while the Department had never banned any functions, organisers who cancelled events were inclined to lay the blame at its feet in an effort to evade personal responsibility for their decision. The Commissioner made a similar response through the columns of the *Daily News* and, in an attempted put down, suggested that the letters to the Editor revealed "a lamentable incapacity to think coherently".¹⁵⁸

The protest did not move the Editor of the *Sunday Times*, who replied at length and supported his original position with more criticism. Children's parties were banned, but the Minister allowed a Baby Show to go ahead and even graced it with his presence. Schools, which in the USA and New Zealand had been closed

¹⁵⁶ WA, 7 December 1948, p.16.

¹⁵⁷ ST, 5 December 1948, p.4.

¹⁵⁸ DN, 6 December 1948, p.2.

during polio epidemics, remained open in Western Australia. The unfortunate practice of servicing toilet pans during school hours was allowed to continue. Quarantine regulations were imposed on the children of interstate visitors, but movements within the state were not restricted. The Editor doubted the Department had the power to enforce its policies, but argued that Parliament should have been asked to provide them. He concluded -

We say there is a public lack of confidence in the Health Department, not only in the field of infantile paralysis, but in other fields... we tell Dr Cook and the Government that the public is not satisfied... with statements that are so vague and confused that they only serve to bewilder the people at a time when parents might reasonably expect to be reassured.¹⁵⁹

Earlier in the year the Commissioner had complained of a lack of co-operation between his Department and local government authorities over regulations governing infectious diseases.¹⁶⁰ The relationship between state and local authorities, like that between state and federal bodies, was always prone to some difficulties. However by the end of the year there was a much broader level of discontent, mainly noticeable in the Departmental relationships with the press and members of the public.

The most dramatic commentary came just before Christmas in the form of a cartoon by Saw titled "Not a Charming Situation" [Figure 16].¹⁶¹ The central image in the scene is a huge black snake which

¹⁵⁹ *ST*, 5 December 1948, p.4.

¹⁶⁰ *ST*, 18 July 1948, p.4.

¹⁶¹ *DN*, 17 December 1948, p.2.

is coiled to spell "polio". The snake stands on its tail and looms large over the "Health Department", represented by a man who is a snake charmer wearing colonial style dress, a pith helmet and white suit. Nearby stands a small cane basket with lid ajar. The snake was once small enough to be contained by the basket but now it has grown to be a horrific and threatening presence. The "Health Department" is playing a snake charmer's flute, which emits "soothing sounds" in the direction of the reptile. Meanwhile the public, the same 1940s man of the previous cartoon, stands on the sidelines giving advice. This time, as he offers the "Health Department" a double-barrelled shotgun titled "direct action" he says, "Try this one - it makes noises too".

The cartoonist used an image of primal fear to make his point. The threat of snakes was well known in country and suburban Western Australia in the 1940s. However the snake in Saw's cartoon is a cobra, an exotic breed, which looms as a threatening and uncontrolled presence. In the face of it the "persuasive" actions of the Public Health Department, cast as an upper-class colonial figure, are interpreted as ineffectual, and ridiculous. The public, which in reality has no solution to offer because of the mystery that still surrounded polio, nevertheless proposes a different approach to the problem: "direct action". When confronted by the enlarging menace of a rampant polio virus the response of the Western Australian Public Health Department was seen as lacking in the force some considered the

crisis required and deserved.

During the latter weeks of November and the first three weeks of December the number of reported cases of polio began to increase again. The rise was most noticed after the school year ended on 2 December, when many families began their summer holidays, and the number of cases did not decline until the fourth week of that month.¹⁶²

As Christmas drew near two more deaths brought the total for the year to twenty-five. Questions were raised about the wisdom of children having dental operations and tonsillectomies performed. Heroic stories had already appeared, including one concerning the progress of an iron lung baby living in the care of his widower father.¹⁶³

The year closed with the realisation that the effects of polio were here to stay. There appeared pictures and stories of people who had contracted polio and yet battled with their affliction to triumph in some way. A girl of fifteen, who had been hospitalised for six months, was driven from the IDB to her school, St Mary's, West Perth, to receive the "Hamilton History Prize for 1948". In addition, she was awarded the Form prize for "her example of courage and cheerfulness".¹⁶⁴ A mother of two from Shenton Park,

¹⁶² *Public Health 1948*, (1949). p.63, BL, 614.09 WES.

¹⁶³ *DN*, 18 November 1948, p.7.

¹⁶⁴ *ST*, 12 December 1948, p.5.

who three years previously had been told she would never walk again was pictured on crutches, her success being credited to the unorthodox methods of Sister Kenny.¹⁶⁵

A trickle of cases continued from the fourth week of December until the end of February 1949. By the end of that year a further fifty-five cases had been added to the 311 that had been reported during 1948.

The confusion that is evident on the part of the Public Health Department during the 1948 epidemic is partly due to the uncertainty that existed over the origins of polio, and the lack of a proven antidote. This was also the first occasion when such demands had been made on the Public Health System in Western Australia, both during an epidemic and for after-care resources.

Over against these constraints must be placed the advantage that was gained by the elapse of time between epidemics in the eastern states and the outbreak of polio in Western Australia. It may have been possible to learn more from the experience of others, although at this stage all knowledge gained was inconclusive.

The problem that impacted most on the public was due to the administrative style adopted by the Public Health Department. If the application of quarantine regulations was regarded as

¹⁶⁵ *ST*, 19 December 1948, p.5.

paralysing for the community,¹⁶⁶ the style in which they were introduced left the public confused and frustrated.

The uncertainty that surrounded polio in the public imagination is reflected in the ambiguous nature of the three representations of the disease discussed here: the dark trickster, the phantom pugilist, and the evil, looming presence of the exotic snake. All have an element of incomprehensibility about them and they are beyond control. Faced with this threat, it is clear that the cartoonists, and many members of the community were not satisfied with the performance of the Public Health Department. Rather than exercise the full measure of the powers available to it through the Western Australian Health Act, 1911, the Department chose a persuasive approach while members of the community called for tougher preventative measures. Susan Sontag identified this as typical of the reaction to a feared disease:

Epidemics of particularly dreaded illnesses always provoke an outcry against leniency or tolerance - now identified as laxity, weakness, disorder, corruption: unhealthiness. Demands are made to subject people to 'tests', to isolate the ill and those that are suspected of being ill or transmitting illness, and to erect barriers against the real and imaginary contamination of foreigners.¹⁶⁷

The approach of the Public Health Department was later

¹⁶⁶ The idea of "governmental paralysis" was used by Saw in another cartoon [Figure 17] titled "Waiting for something to come down" (*DN*, 19 November 1948, p.2). The cartoon was a comment on stalled plans the WA Government had for developing the coal industry. This was the only occasion on which polio was used to refer to anything other than the disease itself. See Rogers, N. (1992). *Dirt and Disease*, p.13. "Polio was used to symbolise politics, baseball and war".

¹⁶⁷ Sontag, S. (1993). *Illness as Metaphor*, Ringwood, p.166.

interpreted as 'humane',¹⁶⁸ but at the time many saw it as weak. Press commentary and letters to the editor signalled the frustration felt in the community. Cartoonist Saw, in particular, showed that he believed there was another illness to cure - a severe case of bureaucratic paralysis.

Six years later, when the advent of another epidemic threatened to curtail a long awaited royal visit to Western Australia, the Commissioner showed he had regained the strength of his muscles and initiated a meeting with members of the media.¹⁶⁹ His view was -

The panic potential of epidemic poliomyelitis is outrivalled by few other diseases. This particular epidemic coinciding as it did with an historic social occasion, was especially embarrassing to the authorities concerned. The public is entitled to the fullest information during times of an emergency... nevertheless it is extremely difficult to avoid aggravating panic in presenting the facts.¹⁷⁰

The Commissioner aimed to gain the support of the daily newspapers and the ABC to publicise precautions against polio and promote confidence in the community. There can be little doubt that an unstated aim was to minimise the level of criticism

¹⁶⁸ "Move to curtail draconian disease power ",WA , 24 March 1995, p.2. A plan was announced to introduce a new Public Health (Infectious Diseases) Bill in Western Australia which would overhaul the legislative framework for the control of infectious diseases. Sources were quoted as saying that the Public Health Department regarded as draconian the powers given it by the 1911 Health Act (WA Health Act, 1911, sections 14, 15, 248 and 249, pp. 13,189). It was stated that it is only the "humane attitude of health bureaucrats" which has prevented the draconian laws being used.

¹⁶⁹ Greenland, W. (1990). *Infantile Paralysis*, pp. 5-7, shows that in NSW during the 1930s and 40s attempts were made to suppress the extent of press reporting about polio as a way of trying to control fear in the community.

¹⁷⁰ *Public Health 1954*, (1956). Appendix VII, p.53, BL, 614.09 WES.

his department might have to endure as a result of this epidemic, which was about to occur in this worst possible circumstances: the full glare of publicity associated with a royal visit in which the Queen herself could become the target of the polio virus.

In relation to attempts to suppress the press and control public criticism of the Public Health Department, and all matters connected with the epidemics that followed, there is little doubt that the arm of the Commissioner was significantly strengthened by the support he received from the Government Epidemiologist, Dudley Snow, who moved to Perth in 1950. And, while the public continued to make some criticisms, particularly in regard to the continuation of the royal visit, no further cartoons appeared, then or in 1956, to pillory the Public Health Department as it sought to control and defeat polio.

Figure 6: Weekly incidence of polio in Western Australia in 1948, *Public Health 1948*, (1949). Appendix XV, p.62, BL 614.09 WES.

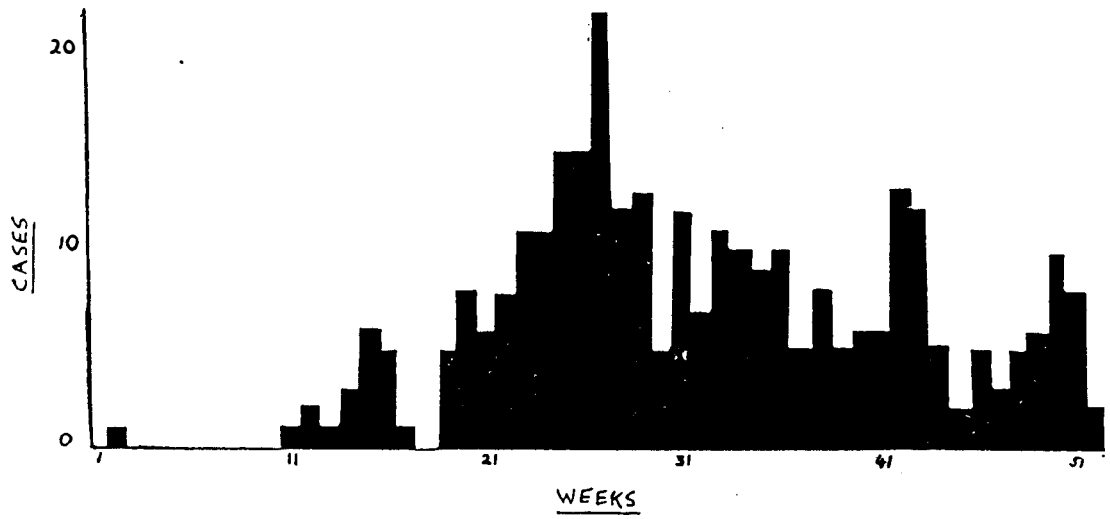


Figure 7: Serial spot map, first 150 cases of polio in the metropolitan area, 1948, *Public Health 1948*, (1949). Appendix XV, p.60, BL 614.09 WES.

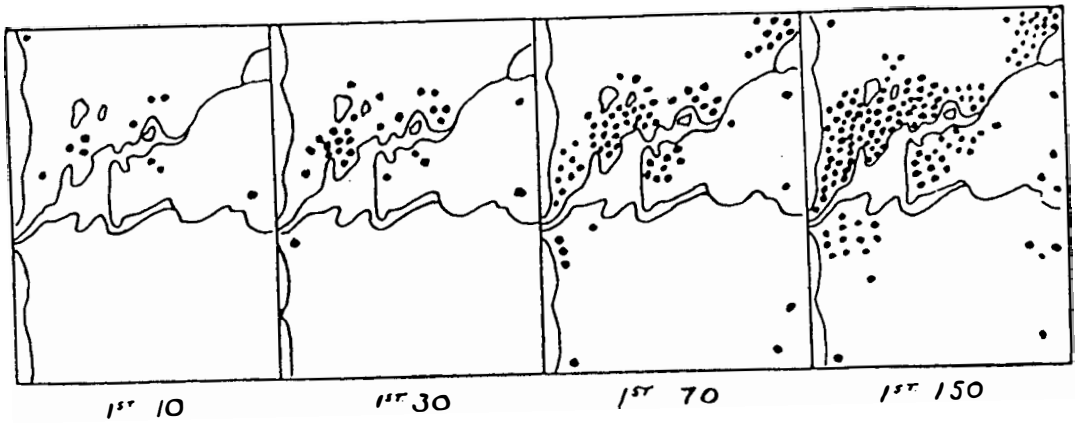


Figure 8: Incidence of polio in Western Australia following the school holidays and the Royal Show 1948, *Public Health 1948*, (1949). Appendix XV, p.63, BL 614.09 WES.

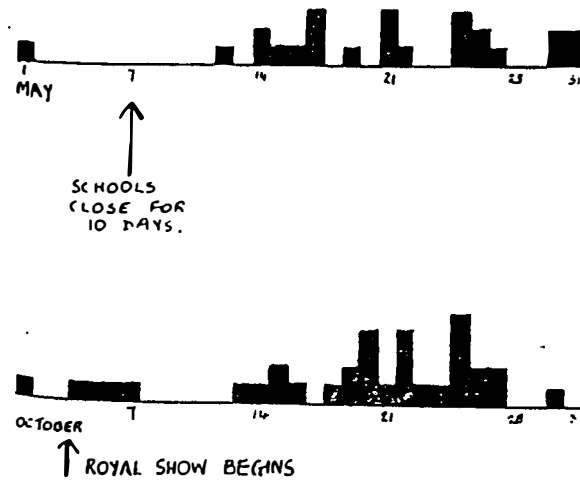
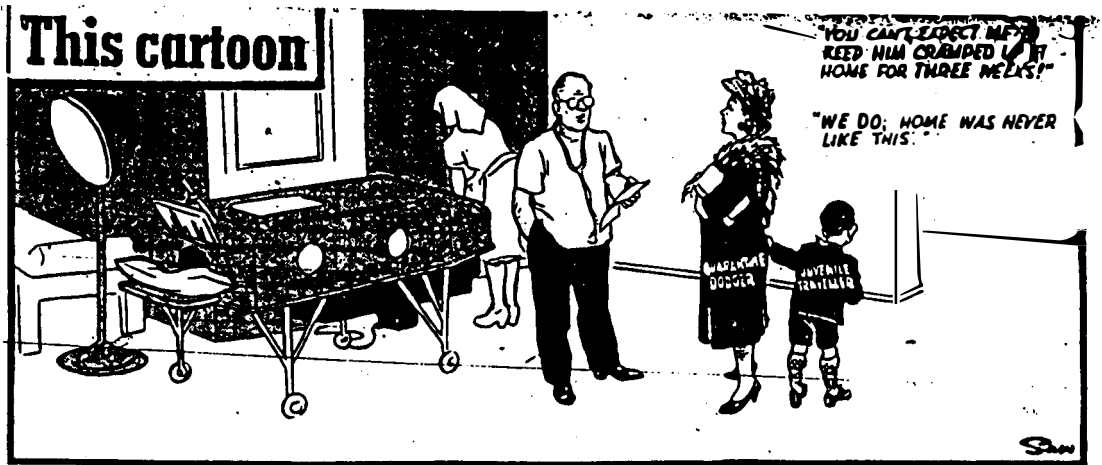


Figure 9: *Daily News*, 17 January 1948, p.2.



and this article *There's no room for argument*

Figure 10: *Daily News*, 24 January 1948, p.2.

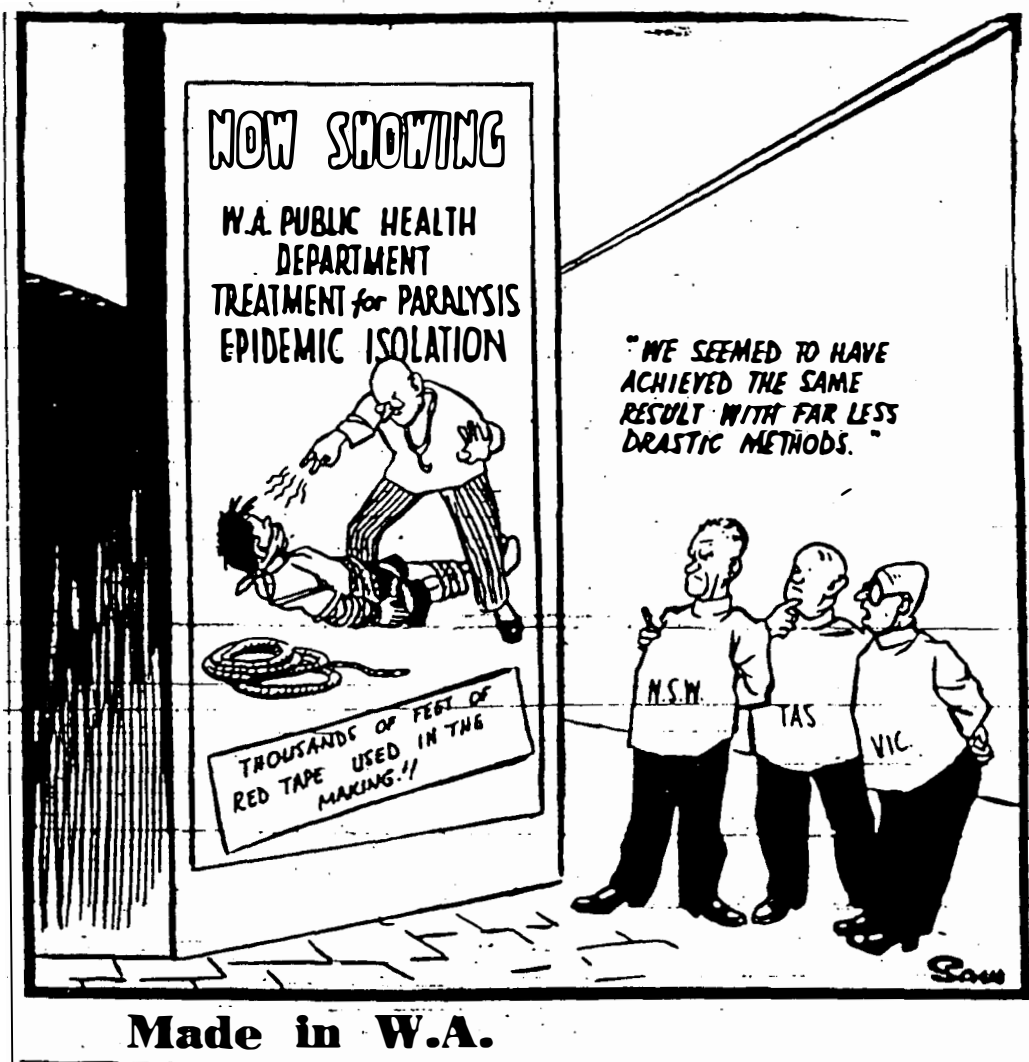


Figure 11: *Daily News*, 31 January 1948, p.2.



Are we getting anywhere?

Figure 12: Daily News, 13 February 1948, p.2.



Made in W.A.

Figure 13: *Daily News*, 3 November 1948, p.2.



“They want to get IN”

Figure 14: *Sunday Times*, 21 November 1948, p.4.



Figure 15: Daily News, 1 December 1948, p.2.

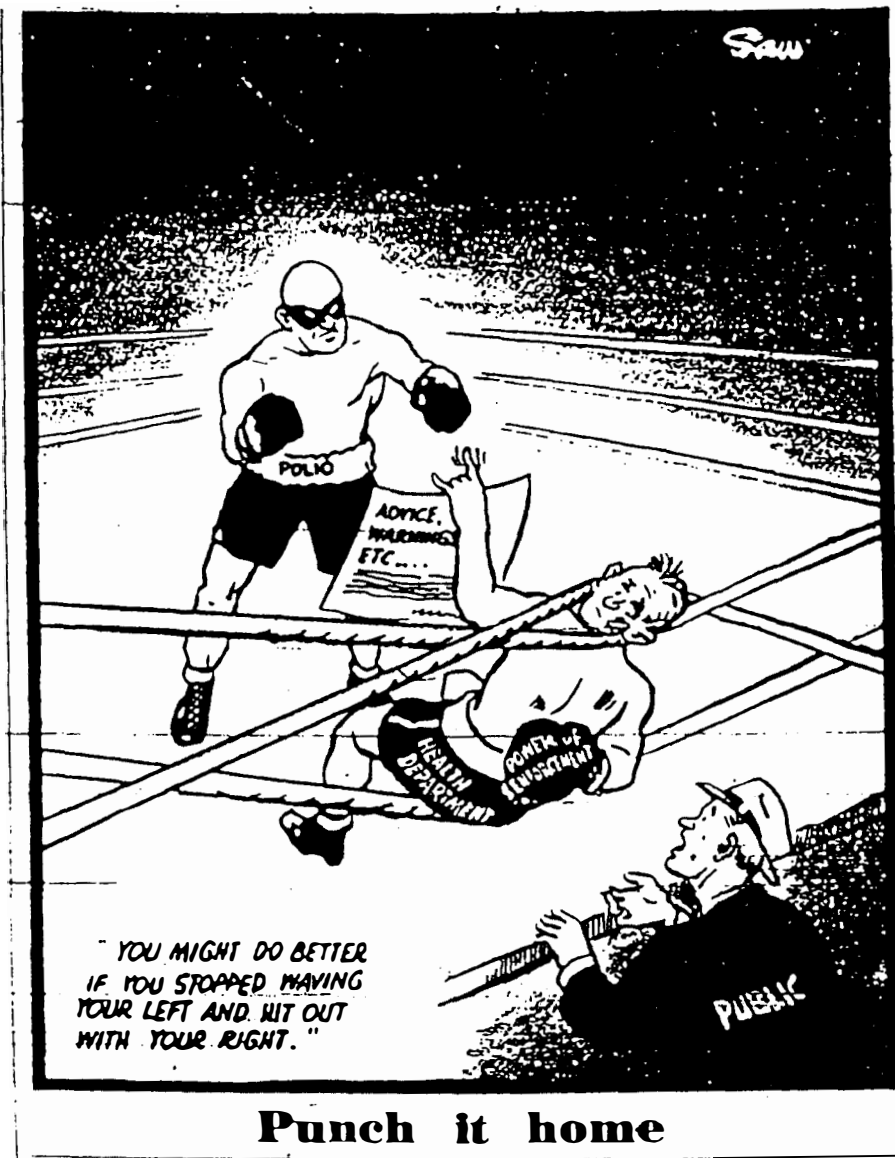
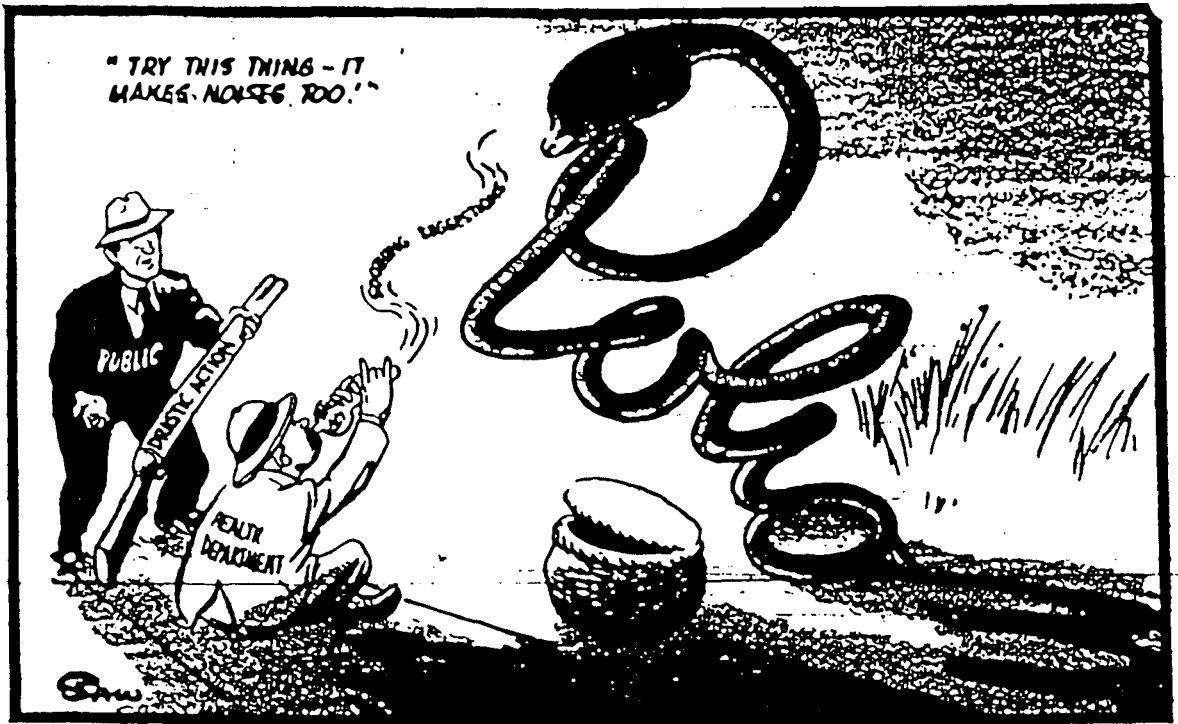


Figure 16: Daily News, 17 December 1948, p.2.



Not a charming situation

Figure 17: *Daily News*, 21 November 1948, p.2.



Waiting for something to come down

CHAPTER 6: A Royal panic: the 1954 polio epidemic.**Memories of the '50's**

Turf cigarettes on the dashboard
of the Holden ute my father drove,
Taking us to wave
our personal flags,
at the Queen as she stepped
from her plane
waving her white-gloved hand.
Polio was the word
on the lips of all the people,
and maybe even the germs.
So we saw the Queen from afar
and the white-gloved hand
touched no-one

I saw her come and go
and wondered when the Queen
would appear.
I'd seen no fur-lined robe
or crown with sparkling jewels.
This was only a lady
with a white-gloved hand,
and we waved our flags in the rain.
Beverley Campbell

Beverley Campbell was five years old at the time of the 1954 Royal Tour to Western Australia. Her poetic reflection on her memory of the event was provoked by a report, in 1985, on recently released British Cabinet archival materials.² The documents made it clear that, in 1954, the Cabinet was "obsessed" with the health and safety of the royal couple, and that Churchill contemplated cancelling the Western Australian section of the tour because the

¹ Beverley Campbell, (1985). *Memories of the '50's*, unpublished poem, used with permission.

² "To crown it all", *National Times*, 18-24 January, 1985, unnumbered page.

state was gripped by a polio epidemic.³ The royal tour and the polio epidemic are strongly linked in the memory of West Australians who lived through these events, particularly those who were children at the time.⁴

A "white-gloved hand" that waved in the distance and "touched no-one" was all that tens of thousands of eager children saw of the royal visit. Because of the fear of polio, children in particular had to keep their distance from the queen, and most only glimpsed her from the roadside as she passed by in her limousine. A photograph of a Raewyn Coppin, an eleven year old legacy ward from Kalgoorlie, who presented a posy to the queen by placing it on stool several feet from her, where it remained, has become an key image of the visit.⁵

Fears for the safety of the queen, whose champion was Prime Minister Menzies and the Federal Government, rivaled those held for the children of Western Australia, whose champion was the Premier and the State Government. The precautionary measures were debated at the highest political level

³ Cablegramme, Stephen Holmes to Menzies, 17 March 1954, AA, A462/4, 825/14/48, no page number. "We would fully understand and so far as proper support any decision by your Government to either cancel the visit to Western Australia or to impose restrictions which are thought wise both in the interest of the Queen's health and in that of the people of Perth and the rest of the state, for example in changing the details of the programme which the Queen is to undertake".

⁴ The ABC TV Social History documentary "*TIME FRAME - Polio Days*", March 1997, dealt with the impact of polio on the royal tour, especially as it affected Western Australia.

⁵ *Women's Weekly*, 7 April 1954, Article by Anne Matheson, Royal Tour Correspondent.

The belief that the incidence of polio would increase if children were allowed to congregate was based on evidence gathered following the 1948 Perth Royal Show.⁶ To limit the prospect of cross infection a childrens' review was cancelled and instead children were allowed to gather, in groups from their own school, at special points alongside the route the Queen travelled.⁷

At the last moment major changes were introduced into the tour arrangements, promoted by the Prime Minister in response to pressure from the British Cabinet and the Royal Household. The changes, which included housing the royal couple on the *Gothic*, moored in Fremantle harbour, were aimed to provide a greater level of safety for the queen during the tour. One result of the increased travelling this involved for the queen was that there were more opportunities for children to see her "white gloved hand" waving in the distance.⁸

From the beginning the key events of the polio epidemic and the royal tour were inextricably intertwined. On 2 February, the day the queen arrived in Australia, it was announced that polio was on the increase in Perth.⁹ February 12, the day chosen for the Minister for Health's announcement that the epidemic was under way, was the same day as the invitations were sent out for the

⁶ Letter, CPH to Undersecretary, Premier's Department, 25 February 1954, BL, ACC 1003, 120/4, 228/54, p.40.

⁷ Greenland, W. (1990). *Infantile Paralysis*, pp. 6-7. In 1938 authorities had tried to restrain the press in the belief that too much publicity concerning the risk of polio infection amongst children would result in parent's boycotting the Sesquicentenary celebrations.

⁸ Oral History Transcript, R.H. Doig, Premier's Department 1926-1965, BL, OH 2144, p.357, used with permission.

⁹ *DN*, 2 February 1954, p.6.

Royal Garden Party at Government House.¹⁰ As the tour progressed in the eastern states, and the epidemic worsened in the west, sensational publicity in both places exacerbated the level of fear and hysteria developing in Western Australia. The royal couple arrived in Western Australia on 26 March, a month when 215 cases of polio were recorded, almost half the annual total of 436. During 1954 hundreds of polio cases were recorded elsewhere in Australia,¹¹ but this was the largest epidemic to occur in Western Australia, and 215 remains the highest monthly total ever to be recorded in the state.¹² Occurring as it did on the eve of the royal visit, it was a catastrophe.

The 1954 epidemic began slowly in Western Australia. During the latter months of 1953 there was a steady rise in the number of polio infections; two in October, nine in November and eleven in December.¹³ The trend continued and, when sixteen cases were recorded in January, fears that an epidemic was approaching strengthened and the Public Health Department began to prepare for a crisis.¹⁴

The question when to declare that an epidemic was under way was resolved on the basis of the number of cases reported. In the period 1949 to 1953, when there was a higher incidence of polio in

¹⁰ WA, 13 February 1954, p.1.

¹¹ Figure 3, Chapter 2 above. NSW had 562, Victoria 572, Queensland 140, SA 174 and the ACT 26, the second highest total on record.

¹² *Public Health 1954*, (1956). Appendix VIII, p.62, BL, 614.09 WES.

¹³ *Public Health 1954*, (1956). Appendix VIII, p. 49, BL, 614.09 WES.

¹⁴ WA, 10 February 1954, p.2.

Western Australia than previously,¹⁵ the highest monthly total of seventeen cases, was recorded in October 1951, [Figure 18].¹⁶ It was decided that if twenty cases were reported in February 1954, the Public Health Department would regard the state as being in the grip of a polio epidemic.¹⁷

No debate on the matter was required because an avalanche of cases occurred, twenty being reported in the first ten days of the month. The final figure for February rose to eighty, thirteen more than in the worst month on record so far, July 1948.¹⁸ Snow realised the gravity of the situation and, in a letter to the Director-General of Health, Canberra, predicted an epidemic worse than 1948.¹⁹ At this stage there had been only one death, but two thirds of the cases involved paralysis and at least three required treatment with an artificial respirator.²⁰ Worse was to come.

This epidemic was different from the previous one in 1948 in several important respects. It did not continue through the winter but rapidly reached a peak in March, and died away between April and August. No paralytic cases were reported in September, or December, but no month in the year was free of polio infections

¹⁵ Memo, CPH to Undersecretary, 25 February 1954, BL, ACC 1003, AN 120/4, 228/54 p.49. Figures for the period 1949-1953 were - 1949, 61; 1950, 59; 1951, 96; 1952, 39; 1953, 43. By West Australian standards 96 cases was practically an epidemic. The general rise in incidence was sufficient to maintain pressure on the resources available for treatment and after-care.

¹⁶ WA, 22 February 1954, p.2.

¹⁷ *Public Health 1954*, (1956). Appendix VIII, p.49, BL, 614.09 WES.

¹⁸ WA, 5 March 1954, p.1. The total of 81 was later corrected to 80.

¹⁹ Letter, DJR Snow to Director-General of Health, Canberra, 24 February 1954, BL, ACC 1003, AN 120/4, 270/54, unnumbered page.

²⁰ Letter, CPH to Undersecretary, 25 February 1954, BL, ACC 1003, AN 120/4, 228/54 p.39.

[Figure 20].²¹ Of the 436 notifications in 1954, 45% were paralytic, 48% were non-paralytic, and the balance, 7%, were affected by an unknown disease. Ten percent of cases retained a level of residual disability, significantly less than the 40% in 1948. The four deaths, a mortality rate of less than 1%, was far below the 8% of the previous epidemic.²² The largest number of cases, one hundred and four, occurred amongst children under the age of four, while all those under the age of fourteen accounted for two hundred and ten cases, almost half the final total of four hundred and thirty six.²³ The overall result was that slightly more children were affected during the epidemic than older adults.

Snow's analysis of the areas infected in 1948 compared with 1954, as represented by the spot maps, [Figure 18] revealed that the areas where the disease developed and made progress in 1954 were those that had suffered least in 1948. The pattern demonstrated something Snow regarded as a fundamental principle of epidemiology, namely that -

...the pattern of any outbreak of infectious disease is determined by the balance between susceptibility and immunity.²⁴

The suggested interpretation was that the immunity gained by those living in the areas affected in 1948 persisted, providing them with protection during the epidemic of 1954, whereas those not

²¹ *Public Health 1954*, (1956). Appendix VIII, p.62, BL, 614.09 WES.

²² *Public Health 1954*, (1956). Appendix VIII, p.65, BL, 614.09 WES.

²³ *Public Health 1954*, (1956). Appendix VIII, p.63, BL, 614.09 WES.

²⁴ *Public Health 1954*, (1956). Appendix VIII, p.64, BL, 614.09 WES.

affected in 1948 were susceptible in 1954. Snow's convictions regarding faecal contamination as the crucial element in the cycle of infection, as outlined in Chapters 2 and 3 above, were reinforced by these findings. But this interpretation may not have made sufficient allowance for possibility of a population still being vulnerable due to a different strain of the polio virus becoming active.

A close watch was kept on the weather patterns in 1954, as was the case in 1948, in an attempt to determine whether there were any discernible links between meteorological conditions and the spread of the disease during the outbreak. The results of this study were inconclusive, as were those of similar research conducted in the United Kingdom.²⁵ Once the link between the transference of faecal particles and the spread of polio gained currency, it was believed that, in a community where the disease was present, weather patterns were relevant only in so far as they influenced patterns of social behaviour which led to there being closer contact between people. For example, warmer weather resulted in the persistence of activities such as swimming, through which transmission was more likely to occur.

Once the epidemic was confirmed the Public Health Department, which had the experience of a major epidemic behind it and was better able to deal with such an outbreak, went into emergency mode. Additional hospital staff, accommodation and equipment

²⁵ *Public Health 1954*, (1956). Appendix VIII, p.65, BL, 614.09 WES. See also *MJA*, July 5, 1952, "Poliomyelitis and Atmospheric Conditions in Certain Australian Cities".

were requisitioned and the consultative committee of doctors, convened in 1938 and 1948, was re-convened. The fifteen-member body, now named the State Poliomyelitis Advisory Council (SPAC), met on three occasions during the epidemic to formulate recommendations to assist the Department with policy initiatives, some of which related specifically to the conduct of the royal tour.²⁶

At the direction of the Minister, Mr Nulsen, the Commissioner, Dr Henzell, implemented a wide variety of measures aimed at protecting the public and providing maximum medical support. Press releases advised members of the public of the symptoms of the disease, and of what actions to take if they were presented with a case of polio.²⁷

The primary assumption behind all steps proposed by the Public Health Department was that the disease was spread through personal contact, chiefly involving the transference of faecal particles. It was known the polio virus could persist in the bowel for a fortnight and be an ongoing source of infection. The protective measures recommended were similar to those applied in cases of typhoid. Suspected agencies of transmission were unclean hands, polluted water, contaminated food and, to a lesser extent, flies.²⁸ The theory that oral and nasal droplets were responsible for the spread of polio was now less favoured, though not entirely

²⁶ *Public Health 1954*, (1956). Appendix VIII, p.55, BL, 614.09 WES. The SPAC met on 11 February, 4 March, and 8 April.

²⁷ WA, 13 February 1954, p.1.

²⁸ WA, 22 February 1954, p.2.

discounted, due to the belief that at the commencement of infection the virus was briefly present in the throat. Accordingly unguarded sneezing and spitting in the streets was still being discouraged.²⁹

Greater acceptance of the faecal contamination theory resulted in strong emphasis on the need for personal cleanliness, especially hand hygiene.³⁰ At first there was some confusion in the public mind as to what was meant by "faecal contamination" and the Commissioner had to issue a statement of explanation to dispel the uncertainty.³¹ All children, in particular, were now expected to avoid sharing cups and towels, and to wash their hands before eating food and after using the toilet. These expectations focussed attention on the facilities at schools, which were sadly lacking.

Public works undertaken in Western Australia during the 1930s and 1940s had been limited, due to the stringencies of the depression, followed by the war effort. Canning Dam, a major extension to the Metropolitan Water Supply was completed in 1941, making it possible to service water closets. But as late as 1962, or even 1965, some suburban dwellings still relied on pan toilets.³²

School maintenance and upgrading also suffered. In the 1950s many schools had pan-service toilet facilities, a small supply of

²⁹ WA, 22 February 1954, p.2; WA, 6 March 1954, p.1.

³⁰ *Public Health 1954*, (1956). Appendix VIII, p.50, BL, 614.09 WES.

³¹ DN, 2 March 1954, p.2.

³² Information provided by Dr Lindsay Hunter, Edith Cowan University.

hand basins and taps and, in some cases, little water to spare for hand washing. A resident from the newly established industrial area of Kwinana wrote -

Is it any wonder that the polio total is mounting? If Mr Tonkin would have a look at the disgraceful toilet and washing facilities provided for the 190 children at the East Rockingham school he would act immediately instead of waiting till the epidemic got worse. There are only two toilets provided and no wash-basins. Children have to wash their hands under the tap and then other children go there immediately and drink.³³

An anti-fly campaign was introduced, similar to previous years. Schools, play sheds and wash-rooms were sprayed, and special arrangements were made for disinfecting rubbish bins and sanitary pans.³⁴ The Perth City Council (PCC) had instituted a "Swat that Fly" campaign and it was hoped this would play a part in controlling polio. The PCC vigorously promoted the campaign and, once the epidemic commenced, suggested it would spray all government schools and kindergartens in the city with DDT solution.³⁵ The spraying was undertaken, but at first was limited to those classrooms in which children with polio had been,³⁶ an illogical practice which may have aroused feelings of stigmatisation amongst those who had become infected. The secretary of the Tramways Employees Union called for daily disinfection of public vehicles, as had occurred in 1948, and used the occasion to call for a ban on the overloading of buses and trams, especially during

³³ WA, 11 March 1954, p.8.

³⁴ *Public Health* 1954, (1956). Appendix VIII, p.51, BL, 614.09 WES; WA, 26 February 1954, p.6; WA, 4 March 1954, p.4.

³⁵ DN, 26 February 1954, p.2.

³⁶ DN, 2 March 1954, p.2.

Children were still believed to be the most vulnerable to attack, and the public were warned that fatigue would render those infected more susceptible to paralysis, as would ear nose and throat procedures such as tonsillectomies.³⁸ The Public Health Department also recommended the postponement of immunisations, such as those for diphtheria and whooping cough. Fear and paranoia are evident in the public reaction to this latter measure. Some people assumed the reason for the ban was that these prophylactic injections could cause polio in the recipient, an idea the Medical Officer of the Perth City Council moved rapidly to debunk.³⁹

The Director of Education announced that schools were to remain open but all metropolitan swimming classes would be cancelled.⁴⁰ A week later the Public Schools' Sports Association announced that the inter-school swimming carnival planned for 6 March was cancelled.⁴¹ Swimming was seen as a high risk activity. Despite high summer temperatures, the river beaches and public swimming baths were bereft of swimmers; the population did not risk the river water, though seaside beaches were still patronised.⁴²

The presence of polio was seen as pollution and, by association,

³⁷ DN, 26 February 1954, p.2.

³⁸ *Public Health* 1954, (1956). Appendix VIII, pp.50-51, BL, 614.09 WES.

³⁹ WA, 19 February 1954, p.2.

⁴⁰ WA, 13 February 1954, p.1.

⁴¹ WA, 19 February 1954, p.1.

⁴² DN, 23 February 1954, p.2.

the epidemic was used to draw attention to the decline in the ecological health of the river. "Hi-Jean", who for thirty years had caught crabs in the the river, drew attention to the contradiction of stressing hand hygiene to combat faecal contamination, while continuing to discharge effluent into the Swan.⁴³ Dredging, banking and the amount of refuse it now contained was regarded as having rendered this once pleasant water-way unsafe for leisure activities. A Subiaco correspondent wrote to the *Daily News* -

We're now paying for our past disregard of cleanliness, judging by the beautiful waterway that was the Swan River. This priceless heritage is now a suspected source of polio infection, and we only have ourselves to blame.⁴⁴

Ground sports also suffered. In view of the epidemic the Australian schoolboys' cricket carnival, scheduled for Perth from 11 to 26 March, was cancelled. Fear of infection led the South Australian and Queensland teams to withdraw from the competition, leaving only New South Wales to compete against Western Australia.⁴⁵

The successful management of such an epidemic depended on the availability of up to date information and backup resources such as laboratories and other forms of technical assistance. Western Australia was unable to provide the necessary resources itself and Snow was forced to communicate with laboratories and research institutes in other states, and to seek information from overseas.

⁴³ WA, 13 March 1954, p.9.

⁴⁴ DN, 23 February 1954, p.4.

⁴⁵ WA, 24 February 1954, p.17.

The Public Health Department, through the efforts of Snow, who diligently kept abreast of new developments in the various fields related to polio research, was kept as well informed as possible.⁴⁶ And as a direct result of the epidemic the Public Health Department undertook a six-part research programme which involved co-operation with laboratories in three other states.

Expert advice for the research programme was provided by Dr J.A.R. Miles, a leading polio specialist and senior research fellow from the Adelaide based Institute of Medical and Veterinary Research Science.⁴⁷ The Institute provided diagnostic facilities, not available in Western Australia, making it possible to isolate and identify the virus responsible for the outbreak.⁴⁸ Miles, who had been conducting scientific investigations in the Northern Territory, was invited to WA for consultations.⁴⁹ He visited Perth late in February and, in addition to speaking with the Commissioner and Snow, met with the Premier, A.R.G. Hawke, who was concerned with the effect the outbreak might have on

⁴⁶ File, Poliomyelitis Research, ACC 1003, 120/4, 700/54.

⁴⁷ WA, 20 February 1954, p 1; DN, 19 February 1954, p. 1; Press Statement, 19 February 1954, BL, ACC 1003, AN 120/4, 228/54, p.26; Letter, CPH to Director-General of Health, Canberra, 9 February 1954, BL, ACC 1003, AN 120/4, 270/54, p.1.

⁴⁸ *Public Health* 1954, (1956). Appendix VIII, p 59, BL, 614.09 WES.

⁴⁹ DN, 23 February 1954, p.2. Miles' research, conducted under the auspices of the NH&MRC, had been sparked by the realisation that there was an apparently low incidence of polio amongst Aborigines, even when the virus was active amongst the white population. Figures for 1951-52 revealed that in Darwin there were 10 cases, all whites, and 2 deaths, both adults. During the same period the figures for Alice Springs showed exactly the same result. While this was thought to be most likely due to natural immunisation through contact with the disease, it was hoped there might be another explanation. That it may have been due to "non-specific or para-specific immunisation against some other organism containing a common antigen with poliomyelitis". See Letter, Miles to SMO, Darwin, 13 August 1952, AA, A1658/1, 756/1/34; For the figures see Memo, Secretary, Director General of Health to Dept of Territories, Canberra, 7 May, 1952, AA, A452, 1952/179.

plans for the royal tour. All aspects of the epidemic were considered, especially the implications of large crowds gathering to see the queen.⁵⁰

Miles brought a ray of hope to a gloomy situation. During an interview he highlighted new advances in the quest for a polio vaccine that were being made by American researchers. The long-term future looked positive, he said, due to the success of Dr Enders, of Boston, in growing the virus in tissue, eliminating the need to use monkeys.⁵¹

Miles' announcement was boosted by even more encouraging news. It was hoped successful American research would lead to the production of an effective polio vaccine. Thirty years of searching for a polio vaccine that would be as effective as the one developed for smallpox had not born fruit. As recently as 1953 the World Health Organisation had despaired of attempts to control polio, but now came news of Jonas Salk's success in growing a vaccine that was believed to be effective against all three strains of the virus. Tests commenced in April and were due to be completed in June 1954.⁵²

The good news may have been encouraging, but it was of no immediate help in Western Australia. Miles predicted that the West Australia epidemic would last several months, a point that was later turned against the government by the Prime Minister.

⁵⁰ WA, 24 February 1954, p.1.

⁵¹ WA, 25 February 1954, p.4.

⁵² WA, 20 February 1954, p.7; WA, 28 April 1954, p.10.

The Commissioner was aware of this prediction, and a similar opinion expressed by Snow, when he wrote -

It is apparent that an epidemic of major dimensions is in progress in Western Australia. ...

The initial impression... is that the type of poliomyelitis which is prevalent at the present time is probably milder than the type encountered in 1948. However, it must be emphasised that this is only an initial impression.

The course, duration and ultimate dimensions of this epidemic are impossible to predict with any degree of certainty. Previous experience, however, would indicate that the disease is likely to remain at epidemic level for several months and it would not be surprising if a peak were reached at the time of, or soon after the Royal Visit.⁵³

The Commissioner correctly predicted the peak of the epidemic but was wrong about the strain of the virus. Miles returned to Adelaide with the faecal samples packed in dry ice from which he was able to determine it was the paralytic variety of the virus, Brunhilde, that was active in the epidemic.⁵⁴

General epidemiological research was undertaken, under Snow's direction. An aspect of the research was a notification paper, devised by the Public Health Department, which aimed to secure from all general practitioners as much information as possible regarding those who reported to them with the polio.⁵⁵

The general level of immunity to polio in the adult population was

⁵³ Letter, CPH to Undersecretary, Premier's Department, 25 February 1954, BL, ACC 1003, 120/4, 228/54, p.40.

⁵⁴ WA, 25 February 1954, p.1.

⁵⁵ *Public Health 1954*, (1956). Appendix VIII, p.50, BL, 614.09 WES.

examined, with the assistance of the WA Red Cross Blood Transfusion Service, which provided blood for testing, and Dr N.F. Stanley of the Institute of Epidemiological and Preventative Medicine associated with the Prince Henry Hospital, Sydney.⁵⁶

The aspect of research conducted by the Public Health Department that attracted most public attention was a systematic study aimed at investigating the immunity that is derived from symptomless cases of polio, known in medical terms as the serological evidence of silent immunising infections.⁵⁷ The research, which had to be conducted at a school in which several typical cases of polio had occurred, required the collection of a series of three blood samples, over a period of nine months, and the fortnightly examination of faecal samples, taken from the septic tank.⁵⁸ The health of the students had to be closely monitored throughout the research, and it was necessary for the school to have a septic tank system.

One hundred and fifty pupils from the Como Primary School, a suburb located on the banks of the Swan River near South Perth, were chosen for the experiment.⁵⁹ The research, which was later published in the *MJA*,⁶⁰ suggested that forty-seven per cent of the

⁵⁶ *Public Health* 1954, (1956). Appendix VIII, p. 60, BL, 614.09 WES; Letter, CPH to Director, Blood Transfusion Service, 15 March 1954, BL, ACC 1003, 270/54 120/4, pp.19-20; Letter, Snow to Stanley, 27 May 1954, BL, ACC 1003, 270/54 120/4, pp.30-31.

⁵⁷ *Public Health* 1954, (1956). Appendix VIII, p.59, BL, 614.09 WES.

⁵⁸ *Public Health* 1954, (1956). Appendix VIII, p.59, BL, 614.09 WES.

⁵⁹ WA, 16 March 1954, p.1; WA, 18 March 1954, p.8; *ST*, 21 March 1954, p.29; Letter, DJR Snow to JAR Miles, 17 February 1954, BL, ACC 1003, 120/4, 270/54, pp.22-23.

⁶⁰ Snow, D.J.R., Raad, G.R.A, Woolcott, J.F., Miles, J.A.R., Ames, P.G., Stokes, L.J. (1955). "Immunity to Poliomyelitis: an investigation amongst schoolchildren at Como in Western Australia" *MJA*, 24 September, 2, 13, pp.485-488.

children were immune to polio, but no change was discovered to have occurred in this proportion during the duration of the experiment. The epidemic did not result in the development of a greater or lesser degree of immunity to polio amongst the sample population.

The services of Dr A.A. Ferris and the Epidemiological Research Unit of Fairfield Hospital, Melbourne were utilised in an attempt to isolate the virus from milk, water and sludge.⁶¹ The assistance of Ferris was sought for an additional problem which was kept secret due to fear of public reaction. Samples of water taken from metropolitan beaches revealed an unacceptably high level of faecal contamination. Snow, who called for the utmost discretion to be maintained in the matter, proposed that samples be sent for examination to determine whether or not the polio virus was present in them.⁶² City Beach was one of the areas from which suspect samples were collected in 1954. Those who were afraid of swimming in the river, but felt secure in the sea, would have been dismayed had they known of the suspected risk.⁶³

A clinical investigation was made, by Dr E.G. Saint at the Clinical Research Unit, Royal Perth Hospital, of a polio-like syndrome that

⁶¹ *Public Health 1954*, (1956). Government Printer, Perth, Appendix VIII, p.60, BL, 6 14.09 WES.

⁶² Letter, Snow to Ferris, 17 March 1954, BL, ACC 1003, 120/4, 270/54 pp.20-21.

⁶³ Snow, D.J.R. (1981). *Progress*, pp.88-113. Four years later the vigilance of Snow in this matter paid dividends when a twelve year old boy was diagnosed with Typhoid. The case heralded a minor outbreak that resulted in ten infections, nine of which occurred amongst youths who swam regularly at City Beach, a popular recreation spot near a then damaged outlet of the metropolitan sewerage treatment plant. In 1958, on Snow's advice, the acting Minister for Health, the Hon John Tonkin, MLA, closed the beach to the public.

occurred during the epidemic.⁶⁴ Several doctors reported cases in which bizarre symptoms occurred, such as vomiting, with associated sensory manifestations resembling paralytic polio, such as headache, malaise, and sore throat. The polio virus, or some other virus, was suspected but nothing of this type was detected. Patient recovery was complete and at least two doctors, who had the opportunity to monitor such cases for up to four weeks, detected no signs of muscle weakness.⁶⁵ This phenomenon had not been noticed before in WA. It is possible that the level of fear and anxiety already associated with the outbreak was exacerbated by the excitement of the approaching royal tour and a form of psychosomatic or hysterical illness was the result. The matter was discussed with Miles who reported that similar phenomena had been discovered in South Australia two years earlier. The conclusion of the investigation was that -

The important impression we have gained is that of the overwhelming fear and anxiety on the part of the patient with any mild non-specific fever, and one wonders if early cases with paresthesias are not manifesting mild hysterical signs.⁶⁶

The splint-shop, established in 1949, though now without its founding technician, George Clarke, who had departed under a cloud,⁶⁷ undertook the extra duties of making equipment for the Infectious Diseases Hospital. This initiative, prompted by the inability of manufacturers elsewhere to supply materials and

⁶⁴ *Public Health 1954*, (1956). Appendix VIII, p.60, BL, 614.09 WES.

⁶⁵ Letter, CPH to Director, Clinical Research Unit, RPH, 26 February 1954, ACC 1003, 120/4, 270/54, p.9.

⁶⁶ *Public Health 1954*, (1956). Appendix VIII, p.60, BL, 614.09 WES.

⁶⁷ The information in these files is restricted.

equipment on time, was said to have led to the improvement of facilities at the IDH.⁶⁸

A swimming pool for the after-care of polio patients was regarded as an urgent requirement. Discussion of the possibility of using the Dalkeith Hot Pool was revived, and then abandoned. Numerous attempts to provide the state with hydro-therapy facilities finally bore fruit, with the help of a grant of £12,000 from the Commonwealth, and an appropriate pool was constructed on site at the IDH.⁶⁹

Quarantine measures were also applied, but they were not as stringent as those imposed in 1948, and the subject hardly rated a mention. On this occasion patients were isolated for fourteen days, rather than twenty-one, either at home or in hospital. Close associates, siblings, or adults in special categories such as teachers, food handlers etc, suffered from "house and garden" arrest for a similar period.

The home became a new focus for polio treatment, though it was felt at first that the public might not accept this innovation.⁷⁰ Epidemiological understanding, current at the time, allowed for home treatment in the case of non-paralytic polio, provided the family doctor was agreeable and sufficient precautions were taken

⁶⁸ *Public Health 1954*, (1956). Appendix VIII, p.54, BL, 614.09 WES.

⁶⁹ *Public Health 1954*, (1956). Appendix VIII, p. 55, BL, 614.09 WES; WA, 19 March 1954, p.1; Memo, 16 February 1954, BL, ACC 1003, 120/4, 106/49, p.71; Memo, CPH to Principal Architect, 25 February 1954, BL, ACC 1003 120/4, 5138/54, p.1.

⁷⁰ DN, 18 February 1954, p.3.

to prevent further infection.⁷¹ Similar arrangements had been introduced in the past for the treatment of typhoid patients.

The large number of polio infections in 1954, and the high proportion of non-paralytic cases amongst them, made the introduction of home care easier and preserved hospital resources for those which required intensive care.⁷² The Department formed the view that home-care was effective: it was readily accepted by the public, and no evidence was produced to indicate that further infection resulted from its introduction.

In addition to the research programme, extra medical resources were organised. A consulting physician, Dr I.O. Thorburn, was appointed to work at Public Health Department expense, in support of general practitioners in need of advice.⁷³ A specialist panel of orthopaedic surgeons was established, and additional physiotherapy services were provided.⁷⁴

Where possible the medical fraternity were kept up to date by other means. Early in March two polio specialists, Dr H. McLorinan, Medical Superintendent from Fairfield Hospital, and Dr B. McCloskey, Director of the Poliomyelitis Division, Victorian Public Health Department, visited Perth and gave lectures for medical and

⁷¹ *Public Health 1954*, (1956). Appendix VIII, p.52, BL, 614.09 WES; Memo to all medical practitioners, 8 March 1954, BL, ACC 1003, AN 120/4 228/54, p.68. The patient's linen and excrement had to be treated separately.

⁷² *Public Health 1954*, (1956), Appendix VIII, pp.52-53, BL, 614.09 WES.

⁷³ Memo, CPH to all Medical Practitioners, 8 March 1954, ACC 1003, 120/4, 270/54, p.13.

⁷⁴ *Public Health 1954*, (1956). Appendix VIII, p.54, BL, 614.09 WES.

health professionals.⁷⁵ Both lecturers were hailed by the Public Health Department as having made a positive contribution to medical knowledge and public confidence during the epidemic.⁷⁶ McLorinan, in an address to Perth Rotary Club, attempted to give a positive interpretation of the present difficulties by emphasising that the epidemic would result in an increase in the number of those who were immune to polio, "crude and cruel" though nature's methods for achieving this goal seemed to be.⁷⁷ The results of the Como experiment did not support his conclusion, but his view was one that was current at the time. The community was kept as fully informed as possible regarding the progress of the epidemic and the symptoms of the disease. The Public Health Department distributed Information Bulletins to Local Health Authorities, an information leaflet was prepared for public circulation and announcements were made in the press.⁷⁸

The Public Health Department also embarked on a deliberate public relations strategy because it did not want a repeat of the the criticisms it suffered in 1948, least of all at a time when the state was under the national spotlight because of the royal visit. It realised that a fine balance had to be kept. The public was entitled to the truth, but information needed to be given in such a way that fears would be allayed and co-operation gained. With such

⁷⁵ Memo, CPH to all Medical Practitioners, 8 March 1954, BL, ACC 1003, 120/4, 270/54, p.14.

⁷⁶ *Public Health 1954*, (1956). Appendix VIII, p.58, BL, 614.09 WES.

⁷⁷ *DN*, 12 March 1954, p.2.

⁷⁸ *Public Health 1954*, (1956). Appendix VIII, p.50, BL, 614.09 WES; *Monthly Health Bulletin*, 24 February 1954, CPH to Local Health Authorities, BL, ACC 1003, 120/4, 228/54, pp.37a-c; For examples of press announcements see, *DN*, 25 February 1954, p.10; *WA*, 5 March 1954, p.10.

thoughts in mind, from the outset the Department enlisted the media in its cause. A conference was called with representatives of the press and ABC radio at which it was agreed that, in addition to providing information on specific topics, bulletins would be issued twice weekly, detailing the number of cases reported and the trend of the epidemic.⁷⁹

Ten days after the first announcement of the epidemic, the Public Health Department provided the newspapers with a comprehensive article on polio written by Snow. Published under the heading "Hand Hygiene is Best Single Safeguard Against Polio", the article discussed all aspects of disease and made available to the public the most recent results of medical research. It is clear that Public Health Department policy in this respect had been strongly influenced by Snow, who wrote -

Perhaps if some of the salient facts about this disease were more widely known, more people would learn to regard it, ...as one of the several hazards for civilised living.⁸⁰

He believed that the provision of adequate information would help bring reason and calm to a situation that was potentially fraught with fear.

Snow, who had arrived in Western Australia in 1948, compared the fear he saw with that aroused by "pandemic influenza" in 1919. The reason for the current fear, he said, was obvious; parents

⁷⁹ *Public Health* 1954, (1956). Appendix VIII, p.53, BL, 6 14.09 WES.

⁸⁰ WA, 22 February 1954, p.2.

found the prospect of their children suffering from the effects of paralysis horrifying. Snow admitted that, during an epidemic, the risk of infection was high, but reminded his readers that the chance of serious paralysis was more limited. He wrote -

The odds, therefore, are approximately 1000 to 1 against dying, 500 to 1 of serious physical handicap, and 100 to 1 against the possibility of any symptoms at all.⁸¹

Snow included a detailed histogram for each month of the period 1948-1954 [Figure 19] and provided a brief overview of the history of polio. He explained the manner in which it was believed polio was spread, and the factors which influenced whether or not an infected person became paralysed. The article also repeated information regarding the precautions and preventative measures recommended by the Public Health Department.

The Public Health Department intended that through such publicity community confidence would be aroused, children would be encouraged to exercise "extreme hand cleanliness", and those who encountered infection, in themselves or others, would be prompted to seek urgent, appropriate help.⁸² Despite being criticised for releasing so much information, at the end of the epidemic the Public Health Department regarded the plan as successful. The Commissioner wrote - "there is much evidence to show that these intentions met with success, which was of great benefit to the community as a whole".⁸³ And the the truth of its

⁸¹ WA, 22 February 1954, p.2.

⁸² *Public Health 1954*, (1956). Appendix VIII, p.54, BL, 614.09 WES.

⁸³ *Public Health 1954*, (1956). Appendix VIII, p.54, BL, 614.09 WES.

view was demonstrated, it said, by the fact that although the virus abroad was proven to be the paralytic variety, the incidence of paralysis and death in the 1954 epidemic was markedly low.⁸⁴

Official history, represented by the views of the health experts and the reports of the Public Health Department, contrasted with public perceptions of the situation. As will be seen below, members of the public were severely critical and felt the amount of information provided contributed to the level of fear aroused. The intense criticism was partly the result of the overlap of the epidemic with the royal visit.

The Public Health Department and the Commissioner were criticised in Parliament for the way the epidemic was handled. The criticism drew a strong rebuff from the SPAC, which wrote at length in protest to the Minister for Health. Details were provided of the numerous steps the CPH and the Department had taken in their attempt to control the epidemic and protect the public.⁸⁵ SPAC suggested that the decline in the incidence of the disease, and the low incidence of paralysis, was due to community acceptance of the measures recommended by the Public Health Department.

Public debate continued. The WA branch of the ALP wrote to the Minister for Health -

⁸⁴ *Public Health 1954*, (1956). Appendix VIII, p.54, BL, 614.09 WES.

⁸⁵ Letter, SPAC to Minister for Health, 9 April 1954, BL, ACC 1003, 120/4, 228/54, pp.146-148.

...to request information as to what plans the Department may have to cope with any future epidemic.⁸⁶

The Commissioner replied in detail, and indicated that the controversy behind the request been a painful experience for his Department.

At the end of February, the *Daily News*, printed the first monthly bulletin from the Public Health Department under the heading "Authorities Fear Epidemic Will Worsen".⁸⁷ Alongside the article appeared another headed "Cancel Royal Review Say Worried Parents". It reported the results of a snap survey, conducted amongst "scores of parents" in the city streets. The subject was the school children's review which, on 1 April, would bring together between 30,000 and 60,000 children at the Claremont Showgrounds.

While opinion was equally divided on the subject of what alternative to provide there was no doubt that most of those surveyed were in favour of cancelling the review. Samples of opinion given were -

With all due respect to the Queen, I don't think its worth the risk of possibly permanent paralysis. It wouldn't be so bad if it was not such a serious illness.

I wouldn't send my children to the showground again at any time until they provided much better sanitary conveniences.⁸⁸

⁸⁶ Letter, ALP, WA Branch to Minister for Health, 23 June 1954, BL, ACC 1003, 120/4, 228/54, p.154, and reply pp.155-156.

⁸⁷ DN, 25 February 1954, p.10.

⁸⁸ DN, 25 February 1954, p.10.

Eventually it was decided to cancel the review, but the decision did not receive unanimous public support because, once the queen arrived it was realised that people would congregate to see her, and the risks to health would remain. Even children felt moved to express their opinion on the subject. A disgruntled schoolboy wrote -

This is my complaint on the Royal visit. What chance has any schoolboy or girl of seeing the Queen other than for a fleeting second as Her Majesty drives past on her way to some official function? It seems that the only people who are allowed the privilege of seeing the Queen properly are councillors, their wives and politicians.⁸⁹

Other writers saw rearrangements as futile and forcefully stated their view that the entire tour should be cancelled.

Let there be no half measures. If the polio epidemic is as alarming as I believe, the Royal tour of WA should be called off immediately. Rearrangement of the itinerary and reshuffling of children's gatherings is surely a futile expedient. If its dangerous to have a large assembly of children at the Showgrounds, how does it become less dangerous to have them cramming into the city to watch the royal progress? And why should the Queen and the Duke be exposed to even the slightest personal risk? I am just as anxious as the next person to see the Royal couple, but public health and their safety must come first.⁹⁰

And another wrote -

Why aren't the health authorities insisting on a complete cancellation of the Royal visit to this State? Mass movement, whether of children or adults, means sub-

⁸⁹ *DN*, 6 March 1954, p.4, edition 2.

⁹⁰ *DN*, 8 March 1954, p.4.

standard hygiene, and if our present concepts of the promulgation of poliomyelitis are correct, such conditions must lead inevitably to further suffering.⁹¹

In view of the reactions it seems Snow's diligence in providing clear information for the public may have worked against him. Some people, who were free of the political pressures the Public Health Department was under, could see that cancellation of the tour was a logical outcome of the knowledge at its disposal.

Those who wanted the tour to go ahead with the potential risks minimised proposed their solutions. "Prevention Please" from Subiaco wrote -

Because of the the polio epidemic, the Education Department should close all schools for two or three weeks after the Royal visit to allow a quarantine period. ...Two or three weeks of lost schooling now for every child in the State would be far better than the risk of widely spreading the disease.⁹²

The problem was, if polio was transmitted during the tour, this measure would be of no benefit at all.

The effectiveness of the publicity campaign was revealed in other more positive ways. The emphasis that had been given to hand hygiene made people pay attention to health standards in general, and several correspondents brought to notice the need for food handlers, in particular, to take more care. For example, "Observer" of Perth wrote -

⁹¹ *DN*, 10 March 1954, p.4.

⁹² *DN*, 12 March 1954, p.4.

I see that schoolchildren are compelled to observe the "official order" to wash their hands. Why not order the bakers to wash their hands before handling our bread? They are continually handling money (which is germ laden) and the reins. Cooked meats, too, are disgustingly handled, and a fork should be the "official order". If these things were looked into there may be less polio.⁹³

Some doctors believed the best course of action was to cancel the tour and avoid any further spread of infection,⁹⁴ but it is evident that Western Australians were strongly in favour of it going ahead. Throughout the controversy the Premier and Cabinet, acting on advice from the Public Health Department, consistently maintained the view that the risks were minimal provided certain conditions were observed.⁹⁵ This is reflected in a letter in which the Commissioner raised the possibility of discovering whether or not the queen had acquired immunity to polio from a previously undetected infection. He wrote -

It would be possible to determine the presence or absence of the existence of a degree of immunity by a serological examination of her blood conducted in one of the established virus laboratories at present in Australia. It would take from three to four weeks before a report was obtained. If the examination revealed a high level of immunity, then the personal risk to Her Majesty would be negligible and the anxiety on the part of the authorities would be minimal. If the result, however, is negative, the measurement of the risk is extremely difficult. On the whole, however, **providing adequate precautions are taken, we believe this risk to be small.**⁹⁶

⁹³ DN, 12 March 1954, p.4.

⁹⁴ WA, 10 March 1954, p.9.

⁹⁵ Oral History Transcript, R.H. Doig, Premier's Department 1926-1965, BL, OH 2144, p.355, used with permission.

⁹⁶ Letter, CPH to Undersecretary, 25 February 1954, BL, ACC 1003, AN 120/4, 228/54 p.41. Emphasis added.

There is no evidence that the suggestion was followed through and, given the attitude of other health and medical experts, it would not have been regarded as necessary.

The government and the Public Health Department carefully reviewed the arrangements being made for the royal visit with the intention of minimising the possibility of more polio cases, and limiting the exposure of the royal couple to the risk of infection. From the start the assumption was that the tour would proceed, but that plans would be modified to minimise the gathering of crowds of children, while allowing for as many as possible to see the queen. The itinerary would also be modified to limit physical contact between the royal couple and the public, and to reduce the possibility that the queen would become fatigued.

Support for continuing with the tour was drawn from the fact that there had been outbreaks of polio in Canberra, New South Wales and Victoria, while little or no alteration had been made to the plans for the royal visit in those places. In Canberra, where one might have expected the protective influence of Prime Minister Menzies to have been felt, hundreds of children fainted at a rally, many drank from common cups, and parents were outraged to find that news of the outbreak was not released until after the Queen had departed.⁹⁷

The performance of the entire Western Australian administration,

⁹⁷ WA, 4 March 1954, p.4.

including the Public Health Department, was under close scrutiny at this time and the State government was caught on the horns of a dilemma. As a Labor government, serving while the Menzies Liberal government was in power in Canberra, the administration may have wished to demonstrate that it was loyal to the monarchy. The Hawke Labor government, in keeping with decisions made by John Curtin at an earlier date, had declared that it would maintain a principle and would not block any honours the queen sought to bestow as a result of the tour, although none of its ministers would accept them.⁹⁸ Any move that could have been construed as an attempt weaken ties with the monarchy would have been very unpopular, and politically unwise.

As the date for the commencement of the tour approached the newspapers, on a daily basis, featured news of the preparations being made, which included pictures of Perth women regaled in the gowns they had had prepared for the ball and garden party. Large sums of public money were also being invested in the tour. The Perth City Council alone spent at least £8965, made up of £4775 for the royal ball, £2000 for the civic reception and £1990 for decorations for St George's Terrace and Barrack Street.⁹⁹

Cancellation of the tour would have incurred substantial material losses amongst many sections of the community, while all would have suffered from disappointment and the loss of face. On the other hand, it was impossible to measure the cost of exposing the

⁹⁸ DN, 17 March 1954, p.1.

⁹⁹ WA, 20 March 1954, p.1.

royal couple, and the members of the public, to the risk of infection. There was potential for a loss of morale and community support, as well as for uncontrollable fear.

The fact that members of the public were deeply troubled was reflected in the unusually large number of requests for help, and suggestions for controlling polio, that were received by the Public Health Department during the epidemic. The volume of personal enquiries was so great that the public was requested to limit its contact to special hours of the day.¹⁰⁰

Letters to the Commissioner containing suggestions regarding the cause of polio came from lay and educated alike, and included every possible angle. One correspondent offered a list of six suggested lines of enquiry, each of which raised questions concerning the effect of immigration, or methods of processing food

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The increase in the number of New Australians.

Market gardeners' produce - migrants do not hesitate to use human excreta on the vegetable plots.

Milk from the country - because dirty containers were used and the cows had rickets.

The "free milk" system - is there a link between this and polio in children?

Washing hands was all very well, but what about washing the vegetables and boiling the milk?

¹⁰⁰ *Public Health* 1954, (1956). Appendix VIII, p.53, BL, 614.09 WES; File ACC 1003, AN 120/4, 689/52 contains many letters on the subject; DN, 23 February 1954, p.2.

The over preservation (mummification) of food, tinned foods, butter, cheese, etc, and the increase of disease.¹⁰¹

Other suggestions were more direct, for example, warn parents that money is very dirty and may be a means of spreading polio.¹⁰² The safety of food was often mentioned. A baker's delivery man was reported to have stopped his horse, used the privy, and not washed his hands before he continued on his rounds.¹⁰³ The crowding of buses, subjecting children to long train journeys, and the hygiene of roller towels were all included in the suggestions which should be investigated,¹⁰⁴ along with the recommendation that pan toilets be emptied at night, rather than during the day, to limit the danger of exposing children to flies.¹⁰⁵ The Minister for Health received a handwritten note which suggested "it is my personal opinion that it is a disease caused by frogs, as it has increased with them".¹⁰⁶

Once again, suggestions were not restricted to lay people. A retired

¹⁰¹ Letter to CPH, 26 February 1954, BL, ACC 1003, AN 228/54, p.51.

¹⁰² Letter, MEK to CPH, 26 February 1954, BL, ACC 1003, AN 228/54, p.52.

¹⁰³ Letter, RIW to CPH, 26 February 1954, BL, ACC 1003, AN 228/54, p.53a.

¹⁰⁴ Letters to CPH, BL, ACC 1003, AN 228/54, p.53; pp.74-5; p.78; p.90; pp.82-3;.

¹⁰⁵ Letter, RT to CPH, 4 April 1954, BL, ACC 1003, AN 228/54, p.87.

¹⁰⁶ Letter, DR to Minister, 7 March 54, BL, ACC 1003, AN 228/54, p.117.

health officer, not content to suggest the cause but also offering a solution, wrote -

Every effort should be made in seeking for a rare mosquito, at present perhaps unknown to the scientists, which exists in Australia in small numbers and in isolated areas. Thirty years ago Australia rarely had a case of polio, presumably because of its rarity here. In the period of years however, these have slowly multiplied and so polio cases began to appear in Australia. Polio cases would then become the actual disseminators and the mosquito would be the indirect carriers, in the same way as Malaria.

If circular letters were sent to all Local Health Authorities to search carefully for any mosquitoes hibernating in bedrooms where polio cases occurred and destroyed them by spray or otherwise and forwarded them to your Department for tests, some light might develop on the matter.

To assist the Health Inspectors, they would need a pair of magnifying glasses in the form of spectacles...¹⁰⁷

There is a connection in time, if not in fact, between the intensity of the epidemic, manifestations of hysterical illness (see above p. 238 -239) and the number of unusual solutions put forward by the members of the public.¹⁰⁸ The number of reported infections

¹⁰⁷ Letter, JJS to CPH, 8 March 1954, BL, ACC 1003, AN 228/54, pp.90-91.

¹⁰⁸ The largest number of polio cases were reported in the weeks immediately preceding the arrival of the royal party in Western Australia [Figure 20], a period when community expectations and interest were at a peak, and alternative solutions to the problem abounded. There was a higher level of infection, and greater vigilance, but it is also true that the community expectations were at a peak of excitement. One can only speculate at a possible link between the level of anxiety in the community and vulnerability to the disease. The number of reported cases declined markedly once the royal tour commenced, but the pattern of the epidemic is consistent with that of 1956.

declined rapidly, from the commencement of the tour, and did not increase two weeks later as they had following the 1948 Royal Show. Restrictions were lifted at the end of April.¹⁰⁹ The epidemic had run its course, and the protective measures had been effective.

The government sought the best possible medical advice to assist it in planning for the continuation of the tour. The poliomyelitis committee of the NH&MRC was invited to meet in Perth, which it did from 10-12 March. As it happened, this was during the worst phase of the epidemic.¹¹⁰ Hosting this meeting in Western Australia was a political coup. It provided the government with impeccable medical advice with which to argue its case for the continuation of the royal visit.

Snow and Miles gave reports to the committee, which was chaired by the Director General of Health, former CPH for WA, Dr C.E. Cook, who praised the approach to polio control that was taken by his old department, suggesting that it serve as a model for other states.¹¹¹ In connection with the royal visit to WA the NH&MRC Committee recommended that -

(a) The shaking of hands with Her Majesty and His Royal Highness and the presentation of loyal addresses and bouquets should be discouraged.

(b) The special precautions proposed by the West Australian Department of Public Health should be applied in respect of

¹⁰⁹ WA, 27 March 1954, p.2; ST, 25 March 1954, p.6.

¹¹⁰ *Public Health* 1954, (1956). Appendix VIII, p.56, BL, 614.09 WES.

¹¹¹ DN, 10 March 1954, p.1; *Public Health* 1954, (1956). Appendix VIII, p.7, BL, 614.09 WES.

persons preparing and handling food for the the Royal Party;

(c) The arrival of the *Gothic* should be delayed as long as possible and contact of the ship's company with the shore should be reduced to a minimum. In addition it is desirable that the *Gothic* be fully provisioned prior to departure for Western Australia.

d) The Committee is of the opinion that Her Majesty should not be subjected to undue fatigue.¹¹²

The recommendations were conveyed to the Commissioner who passed them on to the WA government. The recommendations of the Public Health Department itself followed those of the NH&MRC almost to the letter. Handshaking was to be eliminated, the number of persons who prepared meals for the royal couple was to be restricted and those chosen were to be subject to medical examination and laboratory tests to ensure they were free of the virus. In addition the Department recommended that the royal couple receive injections of gamma globulin, that the *Gothic* be provisioned with food before reaching Western Australia, and that no shore leave be permitted to the crew for the duration of the visit.¹¹³

While the NH&MRC met more cases of polio were being reported than ever before. An attempt was made to convince the public that the outbreak was not as severe as that of 1948, because a smaller proportion of cases were paralytic.¹¹⁴ The Premier declared that the epidemic would not be allowed to stop the tour and the Government did not intend to modify the programme for the visit

¹¹² *Public Health 1954*, (1956). Appendix VIII, pp.57-58, BL, 614.09 WES.

¹¹³ *Public Health 1954*, (1956). Appendix VIII, p.58, BL, 614.09 WES.

¹¹⁴ *DN*, 12 March 1954, p.1.

At the time these decisions were being made, Betty Beazley, wife of Fremantle MHR Kim Beazley and a former athlete of note, was taken to hospital with polio. Her son Kim, who suffered from the same illness, had just been discharged and returned home.¹¹⁶ The Beazleys were among the many people who offered a theory about those who caught polio, their belief being that it infected those who became run down.¹¹⁷ Mrs Beazley's condition was not serious, but it was recalled with alarm that, on 15 February, she had been in Canberra where she had shaken hands with the queen.¹¹⁸

The editor of the *West Australian* wrote a leading article titled "The Polio Danger" which advocated changes to the tour programme, especially the Childrens' Review, which would -

...pack together children from different schools and different suburbs - far more risky than if each school could be kept together and properly separated from others - and it would make them undergo an arduous day. In addition, the potential danger would be increased by the inadequacy of sanitary conveniences.¹¹⁹

An alternative to the review, the editor believed, was to allow children to see the queen as she passed by their school during the many drives she would make around country districts and the

¹¹⁵ WA, 13 March 1954, p.1; DN, 12 March 1954, p.1.

¹¹⁶ DN, 26 February 1954, p.1.

¹¹⁷ DN, 5 March 1954, p.1.

¹¹⁸ DN, 27 February 1954, second edition, p.1; ABC TV Social History documentary "TIME FRAME - Polio Days", March 1997.

¹¹⁹ WA, 4 March 1954, p.2.

metropolitan area. This arrangement would keep children apart and would leave them within range of their usual conveniences. There were six other major gatherings of children planned into the royal itinerary, at Kalgoorlie, Boulder, Northam, York, Busselton and Albany, and, with "dispersion rather than concentration of crowds" as the aim, the editor suggested several means by which small groups could be organised along routes that the royal party would travel, even within the present schedule. So long as the royal household was confident the tour should go ahead the editor saw no reason for the West Australian administration to do otherwise, but it was felt that it would be a -

...graceful gesture to offer to reduce to a minimum those official presentations which will involve the Queen in the personal contact of handshaking.¹²⁰

There were many who supported this approach to the tour. On the same day as the editorial appeared the Premier announced that the children's review would be replaced by setting up a series of "strongposts" - positions near schools on a now expanded number of routes to be taken by the royal entourage. The convoy would slow as it passed these positions, thus providing a maximum number of children with an opportunity to see queen.¹²¹

Daily News columnist Mary Ferber provided a counter story. In 1948 Ferber took a lively interest in debating issues related to polio. On this occasion she was more ready than others to ask the

¹²⁰ WA, 4 March 1954, p.2.

¹²¹ WA, 4 March 1954, p. 1; DN, 5 March 1954, p.1.

Should Western Australia sing: "We don't want to lose you, but we don't think you ought to come?" As the polio epidemic grows worse, anxiety must inevitably centre on the Royal visit to Perth. Is it not so much fear that infection could in any way be allowed to menace the Queen herself, but that the presence of the Queen must mean crowds, long waiting crowds. And polio loves crowds, weariness and impromptu hygienic arrangements.¹²²

Ferber reminded her readers that once before a royal visit had been cancelled. The earlier occasion she referred to was the 1948 visit of George VI, which was abandoned because of the king's ill health.¹²³ On that occasion the grief of the community was expressed in a cartoon by Davies in the *Sunday Times*. Under the title "Any Offers?" there was depicted the window of a men's wear shop in which, on an empty rack, hung a dress suit; next to it is placed striped trousers, a top hat and gloves. At floor level stood a sign which read "For Sale, Cheap" [Figure 21].¹²⁴ West Australians seemed to be greatly concerned with what they would wear to greet the queen, and Ferber knew this.

We went through all the pangs and blisses of invitations, curtsies, buying model frocks for her and dress suits for him. We've done it again. We could weather another disappointment if it were necessary and desirable.¹²⁵

In 1948 Ferber did not resile from prompting the authorities to

¹²² DN, 1 March 1954, p.10. "Monday Commentary".

¹²³ Doig, R.H., BL, OH 2144, p.356. The visit had been postponed twice, in 1948 due to King George VI's illness, and again in 1952, when he died. Planning for the tour began late in 1952.

¹²⁴ ST, 28 November 1948, p.4.

¹²⁵ DN, 1 March 1954, p.10.

take decisive action. On this occasion she did not change her style.

As I have said before in the matter of the polio epidemic all we have to do is to do what we are told. We don't want to put any words into the mouths of the Royal tour officials, who are far from likely to under-estimate any kind of precautions. This royal visit is most importantly for the children, whom we can't stop from going to see her. But if it were decided that her tour should be postponed, we wouldn't quarrel with that decision.¹²⁶

While the government proceeded to make changes to the children's review, it remained resistant to the thought that the tour should be cancelled entirely.¹²⁷

Neither the state nor the federal government, which faced an election one month after the tour was to end, would have wanted to take the politically unpopular decision to abandon the tour. Under the circumstances it would have been difficult for the the royal household to convince the organisers that the visit be abandoned. But the British prime minister, Sir Winston Churchill, and the queen's surgeon, Commander D.D. Steele-Perkins joined forces to in an attempt to do so.

Early in March the first of two high level consultations regarding the WA tour were held in Melbourne. In attendance were the federal director of the royal tour, Lieutenant General Berryman, the private secretary to the queen, Sir Michael Adeane, and the

¹²⁶ DN, 1 March 1954, p.10.

¹²⁷ WA, 4 March 1954, p.1.

state director of the royal tour, Mr R.H. Doig.¹²⁸ The consultation revised the plans for the childrens' review. "Polio Brings Royal Assent to Tour Change" announced the the *West Australian* headline,¹²⁹ and alongside the article published a picture of small school children washing their hands. The proposed changes were "designed to save children from infection", should the epidemic remain unabated by the time the queen arrived.¹³⁰

The next day an editorial appeared the *West Australian* in which the changes were applauded, but the warning was given that Perth

-

...cannot feel it has heard the last of cancellations, or at least revisions, made necessary by the present epidemic.¹³¹

The editorial emphasised the reduction of risks to children, and made less of the question of risks to the queen. The idea was promoted that the real danger of infection lay in the gathering of crowds of children from different locations, in potentially unsanitary contexts, rather than in formal greetings extended by adults to the queen.

As the date for the royal tour drew closer the epidemic increased in

¹²⁸ DN, 3 March 1954, p.1.

¹²⁹ WA, 5 March 1954, p.1.

¹³⁰ WA, 5 March 1954, p.1.

¹³¹ WA, 6 March 1954, p.2. Two sub-editorials followed on the same page. One concerned the risks to the public through unhygienic practices in connection with food, and the other was a dissertation on the strengths and weaknesses of "McCarthyism". Perhaps the policies of Senator McCarthy, and those of the Communism he sought to combat, were considered to be equally dangerous - each could infect the public, which had to maintain its vigilance in the face of them and keep its hands clean.

intensity. The month of March began inauspiciously, and ended with the worst tally of cases on record. Eighty-six cases of polio were reported in the first twelve days, and the second of four deaths to occur took place.¹³² As the number of infections grew, and debate over the tour raged, the level of public fear rose. The day before the queen arrived "a polio conscious scrawler", painted a cross on the doors of the Government House Ballroom with the words "May the Lord have mercy on us all" and "Bring out your dead".¹³³

The *West Australian* editorialised on the subject for the third time. The paper recognised the conflict involved and did not envy the decision-makers their job. Although some reservations were expressed, particularly concerning the risks to children, it supported the continuation of the tour.

If there were any strong possibility of there being what even the most conservative would call a sizable increase in the number of polio cases during the visit, the Government would have been justified in asking that the tour in this State be called off. ...the aim must be to carry it through with a minimum of risk to the Royal party and to the people of the State.¹³⁴

Within a week the Commissioner and R.H. Doig were summoned to Adelaide for a second meeting called to review the tour arrangements.¹³⁵ They were requested to provide the federal Minister in charge of the royal tour (Harrison) and the royal

¹³² WA, 10 March 1954, p.1.

¹³³ DN, 25 March 1954, p.1.

¹³⁴ WA, 13 March 1954, p.2.

¹³⁵ Doig, R.H., BL, OH 2144, p.356.

household, with all available information concerning the polio epidemic, and the plans for the visit to Western Australia.¹³⁶

The men from Western Australia walked into an ambush. An ultimatum was issued that the tour would go ahead only on certain conditions which WA would have to agree to. Doig, who had no prior knowledge of the conditions, had not been authorised to make changes to the arrangements agreed to by cabinet. He telephoned Premier Hawke who flatly refused to budge.¹³⁷ Doig reported his premier's intransigence to the meeting and Harrison, who strongly favoured cancelling the tour, said -

In other words, Mr Doig, you are saying that your Premier considers the Queen's health to be a secondary consideration?¹³⁸

Doig protested that this was not Hawke's view, but he had not authorised any changes to the program. The argument became deadlocked. Late-night sessions culminated in Harrison, Berryman and Doig being summoned to Government House for further consultations, but with no result.

Hawke advised his men that they were to return to Perth. Cabinet had authorised the premier to finalise the matter on the basis of their agreed changes. The regular meeting was scheduled for Tuesday 23 March but the premier was requested to call a special meeting for Monday, 22 March in order to ratify any proposed

¹³⁶ WA, 18 March 1954, p.1; WA, 19 March 1954, p.1.

¹³⁷ Doig, R.H., BL, OH 2144, p.356.

¹³⁸ Doig, R.H., BL, OH 2144, pp.356-7.

changes.¹³⁹ The leader of the opposition, Sir Ross McLarty, publicly supported the premier's wish to see the tour continue as planned.¹⁴⁰ In the final event cabinet did not meet and the premier was not consulted. Changes were made to the programme and the WA government had to accept them.

"Tour Alterations Seen as Political Football" read the *Daily News* headline. Differences of opinion were reported between the queen's surgeon and the Commissioner over the degree of risk involved for the queen. But political game playing was seen to be the main reason for a lack of decision -

The visit of the Queen and Duke of Edinburgh is still in doubt because no one is willing to take the responsibility for any drastic curtailment or cancellation of the tour through the poliomyelitis epidemic. This is seen as the reason for the delay in issuing an official statement from the conference that took place here last night. The Commonwealth Government is not anxious to make a decision to cancel or alter the tour - scheduled to begin next Friday, for fear that it may anger the people of Western Australia. This could be a disadvantageous move with the Government facing an election the month after the Queen is due to leave Australia.¹⁴¹

Eileen Travis, the special correspondent for the British paper the *Daily Mail*, was in Adelaide for the royal visit. Her reports were probably influential in the British press becoming so alarmed over the polio epidemic in Western Australia. Travis cabled her opinion that the tour to Western Australia should be cancelled. She also reported that the queen was not worried about the risks to her own

¹³⁹ WA, 20 March 1954, p.1; DN, 22 March 1954, p.1.

¹⁴⁰ DN, 22 March 1954, p.1.

¹⁴¹ DN, 20 March 1954, p.1.

health and would go along with whatever was arranged for her, but was very concerned of the effect the tour might have on others.¹⁴² Perhaps if the queen was thought to be concerned about the risks to children it would strengthen the case for cancelling the tour.

The Adelaide papers made fair sport of the situation, giving the impression to the world, said Premier Hawke, that "Western Australia was riddled with disease". He replied that the percentage of population affected by polio in Western Australia was currently less than it was when the queen visited Canberra.¹⁴³ On the same page as this, obviously in an attempt to offset negative publicity, it was announced that the the governor, Sir Charles Gairdner, had sent an assurance of loyalty to the queen, who had replied that she was eagerly anticipating her visit to WA. If the queen was not worried, no one else need panic.

Despite the deadlocked meeting, the plans rejected by the West Australian delegates were already going ahead. Unofficial news was received that the *Gothic* had been provisioned in Adelaide and was about to make an early departure for WA, a sure signal that, unless the epidemic suddenly worsened, the royal tour was going ahead.¹⁴⁴

Prior to their departure for Perth, the royal couple, their household and members of staff under the age of thirty-five, received a second injection of gamma globulin, the first having been administered

¹⁴² DN, 20 March 1954, p.1.

¹⁴³ WA, 23 March 1954, p.1.

¹⁴⁴ WA, 23 March 1954, p.1.

while they were in Canberra.¹⁴⁵ Doctors from Melbourne and Sydney questioned the validity of giving the injections.¹⁴⁶ The Commissioner agreed with them; he did not want to support changes to the tour plans, or have to deal with a run on the serum. He stated that gamma globulin, which was difficult to produce in large quantities, was an unproven preventative, the protective powers of which were limited. Supplies were being issued to those who were regarded as being exposed to special risks, but it was quite useless for those who had already become infected.¹⁴⁷

At the instigation of Harrison, the Commonwealth director of the tour, Prime Minister Menzies flew to Adelaide to intervene. Menzies held consultations concerning the tour arrangements, unencumbered by the presence of Hawke's men. He discussed the arrangements in detail with Harrison, who by now must have been exhausted but pleased to be getting his own way, and then dined with the queen and presented his views. Late on Monday night, without having conferred with the WA cabinet, Menzies announced the changes to the tour.

The *Gothic* will be used as headquarters in Western Australia for the Queen and the Duke of Edinburgh, the Royal household and staff, and Press representatives going on from Australia.

For the crew and other naval staff, the *Gothic* will be a restricted ship and permission to go ashore will be confined to those on duty.

¹⁴⁵ WA, 24 March 1954, p.1; DN, 23 March 1954, p.1.

¹⁴⁶ DN, 25 March 1954, p.2.

¹⁴⁷ DN, 25 March 1954, p.9.

All meals taken ashore by the Queen and the Duke and the Royal household and staff will be from food prepared in the *Gothic* and brought ashore.

Indoor functions will be limited to formal functions such as the Executive Council meetings. Attendance at other indoor functions such as the church service and Parliamentary dinner, will be cancelled and, where possible, suitable alternative arrangements will be made.

Shaking of hands will be eliminated.

Where a child is to present a bouquet the child should walk towards the Queen but should retain the bouquet or place it in some suitable position.¹⁴⁸

These decisions, which highlighted the safety of the queen rather than the children, differed from the wishes of the WA Government in several respects, and from the proposals of the Public Health Department and the polio committee of the NH&MRC.

The use of the *Gothic* as the royal headquarters was an innovation. The deletion of the Parliamentary Dinner at Government House and the church service at St George's cathedral were also new arrangements, but the plan to utilise trips to and from the ship to provide opportunities for the population to see the queen was an idea already under discussion.¹⁴⁹

The Menzies scheme allowed the tour to proceed, thus satisfying the felt need for children to see the queen, but forced a greater separation between the royals and the public. Menzies built upon

¹⁴⁸ WA, 23 March 1954, p. 1. Press statement by the Prime Minister, AA, A462/4, 825/14/48, p. 9; Record of events affecting WA programme resulting from poliomyelitis epidemic 1954, 22 March 1954, AA, A462/4, 825/14/48, pp.22-24..

¹⁴⁹ WA, 24 March 1954, p.1.

decisions already in place, such as the elimination of hand shaking, restriction of the movement of the ship's crew and the provisioning of the *Gothic* from outside Western Australia.

The changes won the approval of the British government. A personal message from Sir Winston Churchill was cabled to Menzies which expressed "deep appreciation" for the advice given to the queen and the the stringent precautions put in place. It concluded with -

Your friends and colleagues here realise fully all the difficulties you had to contend with and so appreciate your action the more. We are thankful you were at the helm.¹⁵⁰

Neither government wanted to risk the unpopular move of making changes to the tour, but Menzies "grasped the nettle". He justified his actions by showing that Premier Hawke had not taken seriously enough the expert information provided to him, that his plans for the tour were still too conservative, and that the queen was exposed to too grave a risk. He said -

To do him [Hawke] justice, I must say that I am informed that the Premier does not believe himself that the risk of infection is great.

However, as Her Majesty's Prime Minister, I cannot allow that opinion to weigh against the recommendations of the poliomyelitis committee of the National Health and Medical Research Council, of the the Premier's own Commissioner of Health, who, in a report on February 25 described the outbreak as a major epidemic which was expected to worsen in the following month or two.¹⁵¹

¹⁵⁰ Cablegram, Stephen Holmes to Menzies, 24 March 1954, AA, A462/4, 825/14/48, no page number,

¹⁵¹ WA, 23 March 1954, p.1.

The premier responded angrily, claiming unnecessary interference, but he was accused of wanting someone else to make the decision.¹⁵² While he disapproved, in the end Hawke had no option but to go along with the changes imposed. Western Australia fell in with the new plans, which Doig re-drafted on his way home from Adelaide,¹⁵³ and the premier announced -

...the State Government would co-operate fully with the people of the State in giving to the Queen and the Duke of Edinburgh a very warm, loyal and friendly welcome in accordance with the best traditions of Western Australia.¹⁵⁴

His strong resistance to any changes had been based on the advice of the Public Health Department, which in turn had gathered support from several sources.¹⁵⁵ And his expressed concern had always been for the safety of the children and people of Western Australia.

The next day the Cabinet released a statement aimed to leave no doubt in the public mind that it was enraged by Menzies' intervention. Insult had apparently been added to injury in the way the decisions were conveyed to Western Australia.

The Cabinet expressed strong resentment at the fact that at no stage before he made his decision had Mr Menzies made any attempt to discuss the matter with the Premier (Mr

¹⁵² WA, 23 March 1954, p.1. Notes for press release, AA, A462/4, 825/14/48, p.2, "...it was indicated by the Premier of WA that he wanted someone else to make the decision".

¹⁵³ Doig, R.H., BL, OH 2144, p.357.

¹⁵⁴ WA, 23 March 1954, p.1.

¹⁵⁵ Doig, R.H., BL, OH 2144, p.355. "Hawke took the view, right from the start that the risk was minimal".

Hawke), which it is claimed he could easily have done by an Adelaide-Perth telephone conversation.

The Cabinet also expressed resentment at the fact that the Premier had received his first advice last night [Tuesday 23 March] of the decisions made by Mr Menzies from a Perth Newspaper office, about half an hour before he had received any official advice from Mr Menzies.¹⁵⁶

But telephoning Hawke who, as Doig had made clear, was adamant in his view, would have served little purpose. And the return of his men to Perth had signalled that, as far as he was concerned, the discussion was over.

The editor of the *Daily News*, who loyally supported the WA government as the final, responsible authority regarding tour arrangements, was scathing of the forces that had overridden the premier.¹⁵⁷ A not so successful attempt was made to turn the tables on the prime minister. Since the information on which the final action was based was known a month before the tour began, Menzies, the Commonwealth authorities, and presumably the royal household, should have made their decision sooner. The editor wrote -

...on February 25 the Commissioner of Health in Western Australia had described the outbreak as a major epidemic which was expected to worsen in the course of a month or so...

...that being so, action should have been taken at the end of February instead of leaving the public and all concerned in this State in doubt until the proverbial eleventh hour.¹⁵⁸

¹⁵⁶ WA, 24 March 1954, p.1.

¹⁵⁷ DN, 28 March 1954, p.8.

¹⁵⁸ DN, 28 March 1954, p.8.

The editor accepted that, in the light of information provided by the Commissioner, the local administration had thought out all the implications and decided it was safe to go ahead with the tour. He took the opportunity to point out that polio was equally as rife in Canberra, New South Wales, and Victoria,¹⁵⁹ so that if other states had planned as thoroughly as Western Australia, changes would have been made to tour arrangements in those places.

Western Australia, it appeared, had been "scapegoated", and this had happened, it now emerged, on the advice of the queen's medical advisor. The state's reputation for being a healthy place had been damaged, but, after all this,

...it has not in any way dampened our enthusiasm or our demonstration of affection for the Royal Visitors to whom we are proud to be hosts.¹⁶⁰

The Public Health Department acknowledged that much of its thinking and planning had been rendered redundant by the Adelaide conference and the interventions of the prime minister.¹⁶¹ However its thorough research and preparation had assisted the government in its planning, and during the arduous negotiations over the tour. It provided them with a sound basis for discussion and decision making even though others interpreted the data differently and used it against them.

¹⁵⁹ Figure 3, Chapter 2 above. NSW had 562, Victoria 572, Queensland 140, SA 174 and the ACT 26, the second highest total on record.

¹⁶⁰ DN, 28 March 1954, p.8.

¹⁶¹ *Public Health 1954*, (1956). Appendix VIII, p.58, BL, 614.09 WES.

While decision makers struggled over the future of the tour, public discussion of safety issues continued. A party of passengers who arrived at Fremantle in transit from Cape Town followed the advice of the port health officer and kept their children on board ship, rather than risk infection on land.¹⁶² The south west town of Bridgetown, not far from Noggerup, banned all children under fourteen from attending the local picture theatre. They also applied to the Commissioner for the power to quarantine for fourteen days any people who visited an infected area, that is, who travelled outside the road board boundaries.¹⁶³ The move was aimed to restrict residents from travelling to Perth, or to nearby districts to see the queen.

Warnings were issued against the use of roller towels, which came in for special criticism from Snow. He said they were "the most criminal type of towel"¹⁶⁴ provided for public use and recommended that every public convenience be fitted with disposable towels.

Swimming in Lake Monger and the Swan River were strongly discouraged by the Health Department, while correspondents aired their views and fears concerning the handling of food in the public domain, the use of dirty taps, and drinking from public

¹⁶² WA, 5 March 1954, p.8.

¹⁶³ WA, 24 March 1954, p.1.

¹⁶⁴ WA, 5 March 1954, p.3.

fountains.¹⁶⁵ A correspondent to the papers suggested that street drinking fountains should have foot operated taps, to minimise the possibility of contamination. In reply the Health Department said that, though the idea had merit, it was impossible to implement it quickly enough to make any difference to this epidemic.

The churches also joined the fray. Having previously offered special prayers for the queen's safety, and also prayers for polio sufferers, because of the epidemic the two subjects now came together. The Revd Ralph Sutton, superintendent minister at Wesley Church indicated that if the epidemic worsened -

The World Council of Churches would be approached to organise prayers on a State-wide basis.¹⁶⁶

Letters to the editor in the daily papers represented both opinions - that the tour be cancelled, and that it continue. Many based their reasoning on patriotic grounds. Others, in a manner reminiscent of the 1948 epidemic, reflected that there were cases of polio in other states when the queen had visited and hygienic practices were being breached in the community every day, leading, they thought, to the obvious conclusion that the tour should go ahead.¹⁶⁷ One such, "Worried", wrote -

I hope nothing will be done to cancel the Royal visit unless it is of the gravest necessity, endangering not only

¹⁶⁵ WA, 9 March 1954, p.13; WA, 5 March 1954, p.3; WA, 6 March 1954, p.11; WA, 10 March 1954, p.9.

¹⁶⁶ DN, 15 March 1954, p.2.

¹⁶⁷ WA, 4 March 1954, p.7; 6 March 1954, p.16; 13 March 1954, p.9.

ourselves but our royal visitors.

If the epidemic is a matter of faecal contamination, how does it account for the scattered nature of the cases? Unless we have complete isolation, what other precautions can avail? Hospital visiting, school attendance, etc., have not ceased. People with children, or having contact with them, are on public conveyances. People still attend church, cinema, and crowd into the shopping areas.

This is not the only State with polio at the present time, and the spreading out of crowds, (with children at points involving the least travelling, and mixing mainly with those already of their group) should be as good a safeguard as any against increase.¹⁶⁸

On Friday 26 March 1954 the royal tour to Western Australia commenced according to the Menzies recommendations. The local newspapers eulogised the royal couple, and trumpeted the welcome they were afforded by their loyal Western Australian subjects.

The cancellation of the service in St George's cathedral was regarded, particularly by the dean, as the most disappointing aspect of the changes. The question was asked as to why a "suitable alternative", such as a service in the open air, could not have been substituted. Dean Bell announced that the service, a harvest thanksgiving, would be held as planned. The governor would read the first lesson, as intended, but without the royal couple present. He urged those invited to still plan to attend, with the words "I would like people to remember that God will still be there".¹⁶⁹

While Dean Bell believed that God would still be at the cathedral,

¹⁶⁸ WA, 12 March 1954, p.6.

¹⁶⁹ DN, 23 March 1954, p.1.

during her stay in Western Australia the queen would not reside at Government House. She was to be housed on the *Gothic*. A photograph of the government house bedroom which had been prepared for the queen but was no longer required was published over the plaintive caption "Where she would have slept".¹⁷⁰

As the royal tour had progressed through the eastern states the *Women's Weekly* had provided its readership with a rich diet of stories accompanied by photos of the queen in the company of Governors, Archbishops, and crowds of people. Western Australia received very different treatment from correspondent Anne Matheson, who took an entirely different line. The only picture to appear was the one of Raewyn Coppin, and there followed an article headed "Family Picnic Atmosphere in Perth" which now reads like a send up the event.

A refrigerated ice-cream van in the Royal progress through Perth set the family picnic atmosphere that persisted throughout the Queen's Western Australian tour.

The van carried a picnic lunch and dinner for the Queen and the Royal Household, specially prepared on board the *Gothic*.

The Queen's "quarantine diet" was a cold collation for both lunch and dinner. Even table linen and cutlery were brought from the *Gothic*.

The meals were prepared by her page, sergeant footman and footman who kept the required six feet away from all members of the Government House staff while they set the table and served the meal.

The Queen and the Duke and the Royal Household lunched and dined in a private dining room while the Governor of Western Australia, Sir Charles Gairdner, and the

¹⁷⁰ DN, 23 March 1954, p.1.

Honourable Lady Gairdner, and their staff, dined alone.

The Queen and her household had fairy toast, since no fresh bread was eaten on their polio precaution diet. Although the salads were brought in the *Gothic* to Western Australia, they were carefully washed and prepared in a very slight antiseptic solution that was quite tasteless.

Grapes were all peeled before being eaten and no fresh water was placed on the table.¹⁷¹

Matheson went on to report on the "keep your distance" and "no handling" rules in action, assuring her readers that because of them the reception lines lost none of their dignity, even though the queen and the Duke shook hands with no-one.

When it came to planting a tree in King's Park, and laying a wreath at the War Memorial, all those who prepared items for her wore gloves. It was agreed the queen would wear gloves, for added protection during the ceremonies, and discard them afterwards. At the investiture ceremony, which took place out of doors as a precaution against polio, the queen broke the rules, discarded her gloves and "touched all whom when invested with honours".¹⁷²

The arrangements for the tour were controversial, but after it was all over, the state Director, R.H. Doig conceded that, because of the extra travelling to and from Fremantle, "a lot more people saw the Queen".¹⁷³

In June the Commissioner wrote to Commander Steel-Perkins, the

¹⁷¹ *Women's Weekly*, 7 April 1954, no page number

¹⁷² *Women's Weekly*, 7 April 1954, no page number

¹⁷³ Doig, R.H., BL, OH 2144, p.357.

physician who had accompanied the queen on the tour.¹⁷⁴ Referring to an enclosed histogram of the incidence polio the Commissioner had to admit that although the epidemic had declined fairly rapidly after the tour, it had not subsided completely. He remarked on the low rates of paralysis and mortality and especially drew attention to the department's championing of the faecal contamination theory, and the fact that the incidence of polio had not risen following the tour. He wrote -

...it is clear that the unusual collection of crowds in the metropolitan area during the week of the Tour did not in any way affect the course of the epidemic and did not produce a rise in the number of cases notified...

You will perhaps recall that this Department insisted in its publicity and propaganda that epidemic poliomyelitis should be regarded and treated as a faecal disease and that the methods for its control should be designed accordingly.¹⁷⁵

The Commissioner reiterated "there can be no doubt that the Royal Tour did not in any way produce an increased incidence of the disease" and used this to justify his Department's policies. "We are reassured by the feeling that our labours have not been altogether in vain" he said.¹⁷⁶ If there had been a clash with Steel-Perkins before the WA tour began, the Commissioner found some opportunity from these results to rub his nose in it now.

During the 1954 epidemic very few photos of polio victims appeared in the press. No doubt the editors were aware that the community

¹⁷⁴ Letter, CPH to Steel-Perkins, 24 June 1954, BL, ACC 1003, AN 228/54, pp.162-165, Memo attached to Minister of Health.

¹⁷⁵ Letter, CPH to Steel-Perkins, 24 June 1954, BL, ACC 1003, AN 228/54. p.163.

¹⁷⁶ Letter, CPH to Steel-Perkins, 24 June 1954, BL, ACC 1003, AN 228/54. p.163.

did not want to be reminded of the scourge of paralysis, and, as was the case in 1948, when attention was given to the subject it tended to be stories with an element of heroism.

Near the end of February, when the Red Cross March Appeal was about to commence, there appeared a picture of students at the Lady Lawley Cottage school. The cottage, which was run by the Red Cross, was home to children who were receiving after-care for polio or cerebral palsy.¹⁷⁷ The school, run by the head teacher Mrs Miller, had formed a percussion band to enable the students to develop better muscle co-ordination. Rather like present day Telethon appeals, the picture of the band was presented as a motivator for fund-raising. The photo, which included many children wearing orthotic devices, was pictured over the caption, "Spastics Play In Own Band".¹⁷⁸ A week later, once more in the interests of the Red Cross March Appeal, a nine-year-old boy named Herbert, who was infected with polio in 1948 and had spent long periods of time at Lady Lawley Cottage receiving physiotherapy treatment, was pictured with two young girls, Patty and Anne over the caption "Despite Infirmity, Herbert is Bright and Cheerful".¹⁷⁹ Finally, near the end of the epidemic, Dr John Colebatch, who had polio in 1953, while working as medical registrar at the IDH, was pictured with a frame that he had designed to enable him to move

¹⁷⁷ Marshall, J. (1996). *Starting With Threepence*, p.47; Stewart, N. (1966). *The Lady Lawley Cottage By The Sea 1902-1966*, unpublished manuscript held at Lady Lawley Cottage. Arrangements for the after-care of crippled children in Western Australia were strengthened in 1927 when the Children's Hospital formed a link with Lady Lawley Cottage, a convalescent home for children that had been established in the seaside suburb of Cottesloe in 1902.

¹⁷⁸ DN, 23 February 1954, p.7.

¹⁷⁹ DN, 1 March 1954, p.1.

about his house. The heading for his photo read "Doctor Polio victim Sets High Example". From such an heroic context came Colebatch's advice to all. He said "throw off your pessimism, and determine to help yourself".¹⁸⁰

The will to overcome the effects of polio was strongly present in individual lives during 1954, as it was present in the minds of political leaders who planned to go ahead with royal tour, despite the real and potential risks to the queen and members of the community. Although the community was divided over the matter, a strong consensus in favour of the tour proceeding remained. The interconnection between the timing of the tour and the rise of the epidemic created an unprecedented level of frustration for administrators, politicians and members of the community alike. The Public Health Department, which aimed to avoid the criticisms it suffered in 1948, endeavoured to keep the public informed about polio, the precautions to take, and the course of the epidemic. But it did not have things its own way. The coming tour stimulated more public debate than might otherwise have occurred and the department felt more pressure than it was expecting.

The fear of polio, which reached hysterical proportions in the lead up to the royal tour, was ever present during the 1954 epidemic. The tour exacerbated the fear, and made it difficult for the Premier and the Public Health Department to maintain their "minimal risks" approach. In the end they lost out to British based fears for the safety of the Queen. And since children were considered the

¹⁸⁰ *DN*, 13 April 1954, p.1.

most likely to transmit the polio virus, her "white-gloved hand" waved from afar and "touched no-one" except some politicians and other dignitaries.

Figure 18: *Public Health 1954*, (1956). Government Printer, Perth, Appendix VIII, p.63, BL, 614.09 WES.

SERIAL SPOT MAPS OF THE TWO POLIOMYELITIS EPIDEMICS
IN PERTH, WESTERN AUSTRALIA.

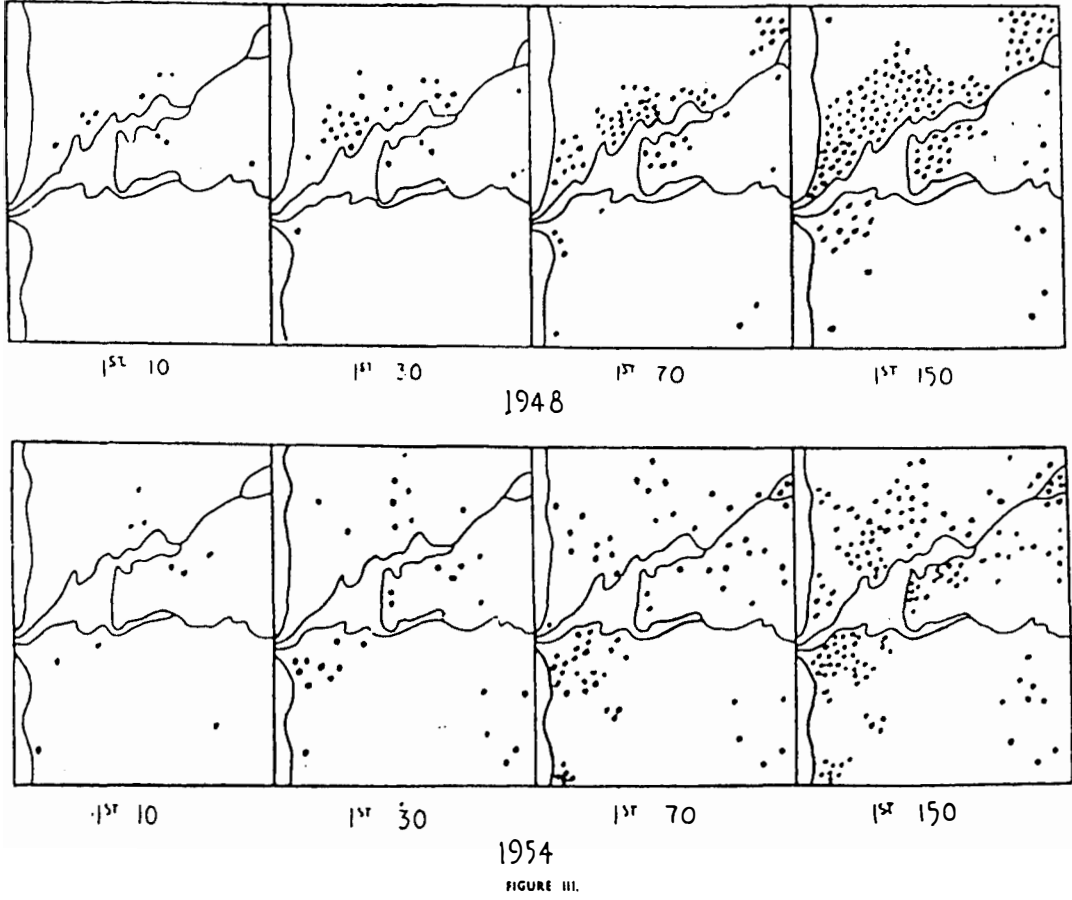


Figure 19: WA, 22 February 1954, p.2.

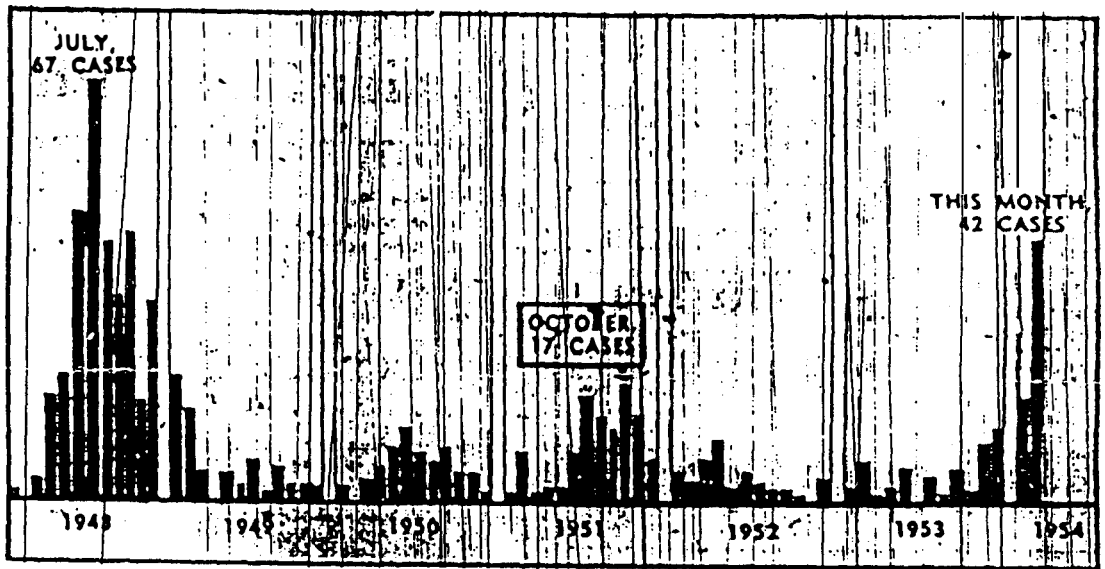


Figure 20: *Public Health 1954, (1956). Appendix VIII, p.62, BL, 614.09 WES.*

POLIOMYELITIS, W.A. - 1954 EPIDEMIC BY MONTHS.

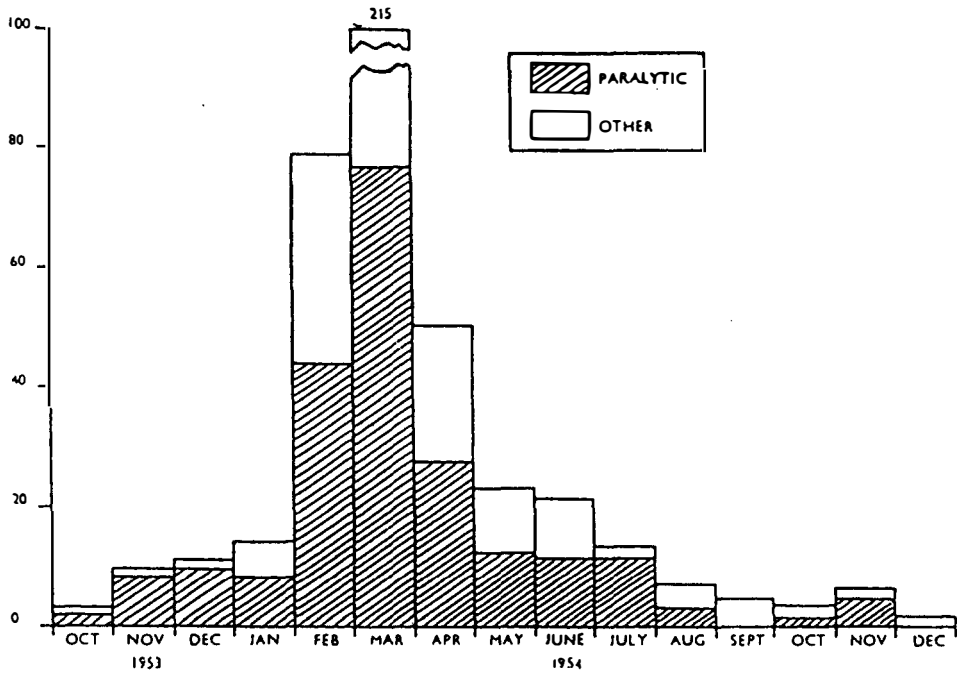
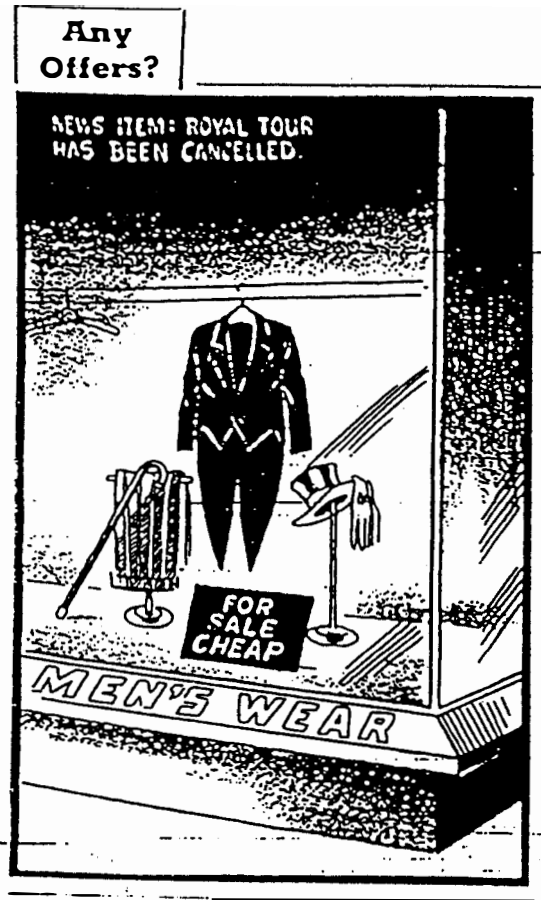


Figure 21: *Sunday Times*, 28 November 1948, p.4.



CHAPTER 7: A savage storm before the calm: 1956

The 1956 polio epidemic was the last to occur in Western Australia before mass immunisation quelled the activities of the virus. The short, sharp and painful epidemic was handled very effectively by the Public Health Department, which had gained expertise and resources from the experience of the previous two outbreaks. Because it did not last a year, as in 1948, and was not associated with a major event, as in 1954, the 1956 epidemic was reported and commented upon less than the previous two. An added factor was that news about polio concentrated on the preparations for the immunisation campaign rather than the progress of the epidemic.

The news about Salk vaccine stirred the hope that immunisation would soon rid the world, of polio's curse. A report was published which revealed the results of an American survey in which, in a six month period of 1955, the incidence of polio amongst eight-year-olds was shown to be 52% less than for the same period in 1954, the difference being attributed to Salk vaccine.¹ In 1955 it had been announced that Salk vaccine would be introduced into Western Australia within a year, following successful mass trials conducted in America.² While the polio virus was notoriously unpredictable, it is possible that, with the promise of relief in sight, the community had begun to lapse into a sense of false security.

¹ WA, 24 December 1955, p 8.

² *Public Health 1955*, (1956). Appendix VII, p.55.

West Australians were used to long gaps between polio epidemics. There were ten years between the initial flurry of activity in 1938 and the first major outbreak in 1948, and it was a further six years before the next epidemic in 1954. Although the incidence had been higher than usual between 1948 and 1954, only thirty three cases of polio were confirmed in 1955, the lowest for more than a decade [Figure 22].³

The shadow of the impending disaster began to fall before the close of 1955 as reports of the activity of the polio virus were received by the Public Health Department. After New Year the number cases began to increase and on 5 January 1956 the Commissioner, Dr Henzell, had the unpleasant responsibility of announcing that two very young boys, one each from the country and the city, had died at the IDH, and that two adults at the hospital were receiving respiratory support.⁴ He informed the public of these developments, recommended that high standards of hygiene be maintained and called for prompt attention to cases of sickness.

The incidence of polio infections continued to rise and very soon

³ *Public Health 1955*, (1956). Appendix VII, p.55. The annual number of cases reported 1949 - 1953 were 61,59,96,37, and 44 respectively, an annual average of 59.4.

⁴ WA, 5 January 1956, p.1.

more stringent precautions were in place.⁵ As before, the papers resorted to militaristic imagery: "Public Told How To Fight Polio" announced the *West Australian*.⁶ The Commissioner recommended that tonsillectomies be deferred, that gatherings involving the mingling of children from different districts be postponed, and that the public maintain strict standards of hand hygiene.⁷

The epidemic was notably severe and intense. A total of 401 cases of polio occurred, of which 359 were reported during the first three months of the year; 151 in January, 143 in February, and 65 in March.⁸

There was a disturbing increase in the number of paralytic infections, added to which it was found that the age of those affected by polio had also risen. Of the 172 paralytic cases recorded in 1956, 150 were reported during the first three months of the epidemic. Worse still, the majority of those paralysed were young adults, an indication that the behaviour pattern of the virus, or the virus itself, had changed. A total of twelve deaths occurred during the year, (a mortality rate of 3%), compared with twenty five in 1948 (8%), and four in 1954 (1%).

⁵ *DN*, 20 January 1956, p.1, "Five more makes it 60" .

⁶ *WA*, 17 January 1956, p.1.

⁷ *WA*, 17 January 1956, p.1; *DN*, 14 January 1956, p.1.

⁸ *Public Health 1956*, (1958). Appendix VII, Table II, p.55.

During January, the most severe month, the number of infections increased rapidly⁹ and by the beginning of February there had been 151 cases of which 70 had been diagnosed as paralytic.¹⁰ This avalanche of paralytic cases, many of whom were adults rather than children,¹¹ heavily taxed existing physiotherapy and respirator services.¹² Physiotherapists curtailed their leave and returned to the IDH to assist with the emergency. Facilities, such as the therapeutic pool that had been built at the IDH, were in constant use. Over an article headed "Pool Never More Vital" the *Daily News* placed a photo captioned "Polio fight Goes On".¹³ The language of combat cast polio as a public enemy.

The greater number of deaths recorded in 1956, compared with 1954, was a direct result of the severe paralysis and attendant respiratory cases. By the end of February eight deaths had been recorded,¹⁴ and in mid March a twenty-four year-old expectant mother became the ninth.¹⁵ More deaths followed.¹⁶ Every effort

⁹ WA, 19 January 1956, p.1; 21 January 1956, p.1; 24 January 1956, p.1.

¹⁰ *Public Health 1956*, (1958). Appendix VII, p.55; DN, 3 February 1956, p.1.

¹¹ DN, 15 February 1956, p.1.

¹² WA, 18 January 1956, p.1.

¹³ DN, 11 February, 1956, p.6

¹⁴ DN, 27 February 1956, p.1.

¹⁵ WA, 13 March 1956, p.1.

¹⁶ WA, 5 April 1956, p.10; WA, 25 April 1956, p.6.

was made to provide the thirty two people who required it with respiratory support, and by this means many lives were saved. The death rate was less than half that of 1948, but the total of twelve was three times that recorded in 1954. Despite this, Western Australia did not lose many people to polio, compared with other places. The *Daily News* published a story from Buenos Aires which told of 138 deaths from polio.¹⁷

From the outset of the epidemic the Public Health Department, in consultation with the State Poliomyelitis Advisory Committee (SPAC), applied the usual methods of control. Patients were isolated, child contacts were placed under “house and garden” quarantine, gamma globulin was administered to those who had been in contact with paralytic cases, less severe cases were treated at home and tonsillectomies were deferred. Increased emphasis was given to the importance of hand hygiene, while organised gatherings of children and young people were cancelled.¹⁸

Three aspects of this epidemic were notable and alarming. The first, and perhaps the most significant, was that the causative virus was difficult to identify. It was eventually named as Leon, or Type III, a variety unknown in any previous Australian epidemic.¹⁹

¹⁷ *DN*, 13 March 1956, p.1.

¹⁸ *Public Health 1956*, (1958). Appendix VII, p.53.

¹⁹ *Public Health 1956*, (1958). Appendix VII, p.52.

At the end of 1955 the Children's Hospital reported the occurrence of a few atypical cases of illness which were thought to be due to "polio or related viruses".²⁰ Any uncertainties that existed were aggravated by the fact that Western Australia still did not have its own diagnostic laboratory and had to wait some time to gather the results of any testing, a fact bewailed by the Public Health Department.²¹ Dr J.A.R. Miles had formerly assisted with virus diagnosis, but his departure from the Institute of Medical and Veterinary Science at Adelaide caused Snow to seek help from Dr A. Ferris of the Epidemiological Research Unit at the Fairfield Infectious Diseases Hospital in Melbourne.

A month after the first samples were sent to Melbourne the virus had still not been identified, and the situation was regarded as very grave.²² More samples were sent for analysis and eventually the causative virus was identified as Type III.²³ The same virus was subsequently found to be present in the majority of fifty samples of faeces and paired sera that the Public Health Department sent to Melbourne for analysis.²⁴ The serial spot map for 1956, [Figure 23] suggests that paralysis from Type III infections occurred largely in suburbs north and east of the river.²⁵

The second disturbing feature of the epidemic was that a higher

²⁰ Letter, DJR Snow to A Ferris, 8 December 1955, BL, ACC 1003, AN 120/4, 270/54, p.78.

²¹ *Public Health 1956*, (1958). Appendix VII, p.52.

²² Letter, DJR Snow to A Ferris, 6 January 1956, BL, ACC 1003, AN 120/4, 270/54, p.79.

²³ WA, 17 February 1956, p.1.

²⁴ *Public Health 1956*, (1958). Appendix VII, p.53.

²⁵ *Public Health 1956*, (1958). Appendix VII, p.53.

proportion of young adults were affected by paralysis. The greatest proportion of cases, 60%, occurred in the 15-34 age range, 15% in the 25-29 age group.²⁶ Young adult males from rural districts, who in the past had been shown to be particularly vulnerable to paralysis, were amongst those most severely affected in 1956. Two factors are likely to have affected this incidence: the less meticulous personal hygiene habits of rural males, and the likelihood that they did not cease activity when suffering from the febrile illness, which had exacerbated the level of paralysis incurred.

The high level of severe paralysis amongst country people meant that it was necessary to devise a means of transporting to Perth those people who required respiratory assistance. Nine patients were delivered safely to care using a vehicle especially fitted out with respirator equipment.²⁷ While the mobile unit continued to be put into service in this way other means of transport were also utilised.²⁸ A fourteen-year-old girl from the southern town of Mt Barker, who urgently required respirator assistance, was rushed to Albany airport and flown to Perth aboard an especially assigned RAAF Dakota aircraft, with a doctor and four nurses aboard.²⁹

The high proportion of cases that resulted in severe paralysis, was

²⁶ *Public Health 1956*, (1958). Appendix VII, p.52.

²⁷ WA, 24 February 1956, p.3.

²⁸ WA, 25 April 1956, p.6.

²⁹ WA, 27 February 1956, p.3.

the third, and most trying aspect of the epidemic, because it often required the patient to be placed in an iron lung. During 1956 a total of thirty two people required respirator assistance,³⁰ twenty six of whom were admitted in a short space of time. All available resources were severely strained in February when a record number of thirteen persons were simultaneously receiving respirator support, more than double the previous record of six established a month earlier.³¹ On occasions as many as three new respiratory patients were admitted to the IDH in one day.³² Respiratory patients were the most vulnerable, and some did not recover. The value of mechanical respirators was clearly demonstrated in 1956. Twenty two of the thirty two respiratory cases survived the acute stage of the first month. Although one person subsequently died, seventeen of the remaining twenty one patients achieved respiratory independence.³³

Special resources were made available to assist the Public Health Department in its "fight against polio". At the onset of the epidemic the Commissioner sought, and was immediately granted, a special allocation of State Government funds to finance extra physiotherapy and consultative services.³⁴ Stocks of gamma

³⁰ *Public Health 1956*, (1958). Appendix VII, p.52.

³¹ *Public Health 1956*, (1958). Appendix VII, p.53, see also HJH Colebatch, "Tank Warfare", *Royal Perth Hospital Journal*, Vol. 9, p. 249.

³² *Public Health 1956*, (1958). Appendix VII, p.53.

³³ *Public Health 1956*, (1958). Appendix VII, p. 53; Letter, HJH Colebatch to DJR Snow, 18 July 1956, BL, ACC 1003, AN 120/4, 5178/57 pp. 86-88.

³⁴ WA, 18 January 1956, p.1.

globulin, more readily available than in 1954, were also obtained.³⁵

As the epidemic worsened there was increased demand for gamma globulin, and the Commissioner was required to publicly restate the conditions under which it would be administered.³⁶ Earlier he had publicised the availability of the preparation and reminded the public that the royal couple had been given it in 1954. His enthusiasm may have been intended to convince the public that, while the number of cases of paralytic polio continued to rise, his department was doing all that it could to protect the most vulnerable members of the community.

The tragic irony of the 1956 epidemic was that it occurred as Salk vaccine became available and a plan for mass immunisation was being developed. All children aged fourteen and under, a total of 194,750 in Western Australia, were targetted for three injections. But Salk vaccine came too late for some. If immunisation had been possible a year earlier the 1956 epidemic would probably have

³⁵ Notes on Poliomyelitis, 19 January 1956, BL, ACC 1003, AN 120/4, 689/52, p.235; WA, 18 January 1956, p.1.

³⁶ WA, 19 January 1956, p.1.

been avoided. As it was the virus had one last chance to wreak its crippling power before it disappeared at the hands of the Public Health Department which planned, with military precision, to eradicate this threat to the community. Mass immunisation commenced in July 1956 and there was a dramatic drop in the incidence of polio infections from 1957 onwards.

It had been proven that the polio virus was present in the faeces during the acute stages of the disease and in 1956 plans to control the virus were clearly based on the recognition of the faecal contamination theory, as this statement by the Public Health Department reveals.

Modern opinion is that by its presence in the faeces contamination occurs from person to person by such methods as faulty personal hygiene, with the resultant contamination of fingers, domestic appliances, and food... strict attention to personal hygiene is essential on visiting the toilet, after which the hands should be thoroughly washed with soap and water... If possible, avoid contamination of the W.C. chain, door handles and taps. Hand washing should also be done by the housewife before any handling of food and by all before eating.³⁷

³⁷ Notes on Poliomyelitis, 19 January 1956, BL, ACC 1003, AN 120/4, 689/52, p.236.

The clarity of emphasis was no doubt, one result of Snow's research conducted during the royal tour.³⁸

The link between faecal contamination and swimming once more resulted in the disruption of summer patterns of recreation. Over eight thousand school children were affected when the Education Department cancelled the vacation swimming classes planned for the numerous baths on the Swan River.³⁹ Seaside instruction was still offered at South Beach, Fremantle because the Public Health Department had expressed the view that small groups which swam in large bodies of moving water would be safe from polio infection. River water, on the other hand, which did not circulate, was believed to harbour the virus for up to 180 days.⁴⁰ The result was that small groups of people frequented the ocean although, despite the warnings, some individuals continued to use the Swan River. In the interest of public health and safety, local authorities banned swimming in the Preston and Blackwood rivers.⁴¹

Fear of polio led to the curtailment of seaside and river based

³⁸ See Chapter 6 above.

³⁹ WA, 16 January 1956, p.2. Baths were operated at Crawley, Nedlands, Claremont, Mosman Bay, Bicton, Applecross and Como.

⁴⁰ WA, 23 March 1956, p.1.

⁴¹ WA, 18 January 1956, p.1; WA, 24 January 1956, p.1.

activities throughout the state, along with other events that brought people together. The tenth annual log-chopping and swimming carnival at Manjimup was cancelled, as was a nurses' swimming carnival to be held in Crawley baths.⁴² A Legacy camp, scheduled to be held at a new campsite at Busselton, was deferred until May and an inter-school camp for children from the North West, planned for Point Peron, was postponed.⁴³ The Barmaid's and Barmen's Union announced the cancellation of their annual picnic at Coogee beach while the Butchers, who on 20 February were to have relaxed together on the river at Keane's Point, Peppermint Grove, decided to forgo the picnic but not the day off work.⁴⁴

The fear of water born infection was put to a real test during a heat wave at the end of January. In eleven days maximum temperatures ranged between 110.7 and 90 degrees Fahrenheit, while the average minimum was 63.2 degrees. Still no one dared swim in the Swan River. The *West Australian* published a graph of the heat wave temperatures and over it placed a photograph titled

⁴² WA, 20 January 1956, p.2; WA, 24 January 1956, p.1.

⁴³ WA, 17 January 1956, p.1; 19 January 1956, p.1; 21 January 1956, p.1.

⁴⁴ WA, 1 February 1956, p.1.

“Como Beach Deserted”. Near a normally popular, but now deserted swimming spot, a small group sat by the river, in the shade of trees, trying to cool off as best they could.⁴⁵

The population’s fear of swimming in the river affected the livelihood of those who ran businesses in the vicinity. A frustrated and economically threatened River Beach Shop Proprietors’ Association fought the restrictions imposed on river swimming. The Association, which claimed that its members would never be able to recover the twenty thousand pounds in trade that had been lost as a result of the two recent epidemics, called for “a public examination into the polio cases reported this year to see if there were any river swimmers amongst them”.⁴⁶

Duncan Christie, President of the Association and lessee of Crawley Baths, highlighted the apparent contradiction in banning swimming while allowing children to attend picture theatres. To support his case he drew attention to differences in the opinions of experts and offered the view that the supposed link between

⁴⁵ WA, 1 February 1956, p.2.

⁴⁶ DN, 28 January 1956, p.2. Greenland, W. (1990). *Infantile Paralysis*, p.37. In 1937 the city of Melbourne estimated that £500,000 had been lost as a result of restricting children’s attendance at cinemas and other forms of amusement.

swimming and faecal contamination was spurious.⁴⁷ Christie pointed out that, in contrast to Snow, Dr Bazeley of the CSL held the view that “there is no reliable evidence yet shown that water, sewage, flies, or food played any important part in the transmittance of the polio virus”.⁴⁸ When two experts could differ on such a fundamental point Christie believed the public should receive the benefit of the doubt, which for him meant that picture theatres should be closed and swimming baths left open.

The ban was not lifted but the deputy Commissioner made a speech to the Association in which he raised the members’ hopes, stating that it was unlikely the coming Spring would see a ban on swimming in the Swan river, due to the commencement of immunisation. Following the speech a deputation from the Association waited on the Minister for Health in order to clarify “future Government policy on river swimming”.⁴⁹ So certain was the Minister of the efficacy of Salk vaccine he replied that, in their position, he would be willing “to speculate on the future”.⁵⁰

⁴⁷ WA, 4 February 1956, p.4.

⁴⁸ WA, 4 February 1956, p.4.

⁴⁹ WA, 23 March 1956, p.1; DN, 28 January 1956, p.2.

⁵⁰ WA, 23 March 1956, p.1.

Although it seemed anomalous to some, picture theatres continued to function with children in attendance, just as they had during previous epidemics. This time Snow justified the practice on the basis of evidence, gathered from the royal tour, that polio was transmitted through faecal contamination rather than oral/nasal droplets. Contacts at cinemas “were not sufficiently close or prolonged” to present a risk he said, and children would be safe so long as they washed their hands on arriving home.⁵¹

The growing publicity given to the faecal contamination theory, along with the residual belief that adults were less vulnerable to the polio virus than children, may account for the determination of the West Australian Cricket Association to proceed with its annual Country Week cricket carnival. Having sought advice from the Public Health Department, special arrangements were made to keep the toilets clean, and cricketers who manifested any symptoms of illness were to be advised not to play.⁵²

Early in March, the Commissioner cautiously greeted signs that

⁵¹ WA, 20 January 1956, p.2.

⁵² WA, 27 January 1956, p.2.

the epidemic was abating,⁵³ but a month later, after four more cases had been reported during the Easter period,⁵⁴ the public were warned not to relax their guard.⁵⁵ Hopes were raised as plans were announced to “wage war on polio”⁵⁶ with the assistance of the special mobile immunisation clinics. Community spirits were boosted by the announcements that further help would soon be available in the form of the newly created Sabin oral vaccine, currently being tested in the United States of America. The public had little knowledge of Sabin at this stage, but the effectiveness of the Salk vaccine and its potential to rid the world of polio “altogether” was strongly championed in the press.⁵⁷

The 1956 epidemic had its share of tragic cases. In March a photo of a man in a wheel chair captioned “End of an Easy Life” headed the story of Rod Harrod, a bank officer who lost the use of his legs as the result of polio he contracted while working in Suva. The island paradise was one in which “the disease was unusual enough not to be diagnosed for several days”.⁵⁸ The implied criticism of

⁵³ WA, 8 March 1956, p.2; DN, 9 March 1956, p.1.

⁵⁴ DN, 4 April 1956, p.1.

⁵⁵ DN, 9 April 1956, p.1.

⁵⁶ WA, 9 March 1956, p.1.

⁵⁷ WA, 13 June 1956, p.1.

⁵⁸ DN, 7 March 1956, p 1.

the “primitive medical conditions” of Suva were somewhat off-set by the fact that it was the well-to-do white westerner who had succumbed to polio. The Bank of New South Wales generously transported Rod and his family back to Perth where, after intensive therapy at the IDH, he was reported to be regaining the use of his muscles.

The press continued to portray polio survivors in a heroic light, for example, in the report on Reno Cammarri, a seven year old boy from Waroona who was paralysed by polio in January. Four months later a feature article on Reno appeared in the *Daily News* which described how muscles in one of his legs, his neck and abdomen were affected. Reno had “fought back” against his paralysis and was now able to walk. Despite missing his large family Reno was reported to be “one of the most cheerful children in the Golden Age”, and was “not even falling behind in his school work”.⁵⁹

The good will towards others that was traditional in rural areas was evident when in May the neighbours of Peter Bott, a farmer

⁵⁹ *DN*, 7 April 1956, p 2.

from the wheatbelt town of Meckering who was confined to the IDH with polio, rallied to plant his crops. To complete the task tens of thousands of pounds worth of tractors and machinery were assembled from far and wide. Work done, the farmers left with the optimistic promise that, if necessary, a similar working bee would be organised to bring in the harvest.⁶⁰

Not so cheering was the news from the Great Southern town of Katanning. Vernon Smith, a married man in his early twenties, became the fourth member of his family to be infected with paralytic polio. He had the added distinction of being the first person to be placed in the Nuffield iron lung which had been installed at the local hospital in 1938 and had lain idle ever since. Vernon's father had died from polio two weeks earlier and his mother and brothers were hospitalised in the IDH when he himself took ill.⁶¹ Vernon's mother requested immunisation for the remainder of her family, who received their injections at the Stirling Street Clinic, some months ahead of the scheduled visit of the mobile clinic to Katanning.⁶² Medical experts declared that no

⁶⁰ WA, 23 May 1956, p.3.

⁶¹ WA, 12 June 1956, p.1.

⁶² Letter, Mrs E. D. Smith to Dr Thorburn, and reply, BL, ACC 1003, AN 120/4, 1242/55, pp.137,138.

comparable case was said to be known in Western Australia, although a set of twins had been infected with polio in 1954. Multiple infections were known in Western Australia, but were not always recognised by the doctors.⁶³ The Commissioner stated that four examples of multiple infections within the same family had been found in the United States of America and there had also been one such case in England. The worst known example was said to come from Australia where, in 1952, a family from Victoria reported five cases of paralytic polio.⁶⁴

As on previous occasions members of the community offered their ideas concerning the the cause and cure for polio.⁶⁵ The range of theories included those that were as bizarre, and sometimes as near to the truth, as those received in previous years, but in 1956 there were fewer of them.⁶⁶ The news that a suitable vaccine had been found may have deflected some public interest away from speculation over causes of polio, but some offered their thoughts.

A naturopath who lived in Victoria was said to have had a large

⁶³ WA, 'Big Weekend', 26 November 1994, p.2. An article, "Epidemic struck down four in family", referred to three Jupp children from Geraldton, and a cousin from their extended family. Oral History Interviewee H reported three cases of polio in her family in 1946 but these were not recognised by the doctors at the time.

⁶⁴ WA, 12 June 1956, p.3.

⁶⁵ File: Poliomyelitis - Suggestions From the Public, BL, ACC 1003, AN 120/4, 44/56.

⁶⁶ DN, 1 February 1956, p.4.

measure of success in treating numerous diseases. He telegraphed the Commissioner with his cure for polio.

Polio caused by chill between the shoulders. Certain things develop in the head first, causing headaches, discharge from the nose. Certain things go [to] the back, hips and groin. When fully developed inside they paralyse the body. Formula - give the child boiled cabbage and all things inside will come out. Letter following by air mail.⁶⁷

A farmer from Salmon Gums, a relative of the Minister for Health, sent the opinion that his neighbours had shot several horses and the flies which had bred up as a consequence were sure to be the cause of polio.⁶⁸ An old digger reported that when he was on a troop ship in 1916 the Medical Officer contained an outbreak of meningitis by ordering the men to gargle salt water.⁶⁹ Others suggested that polio was caused by the tick virus in hens eggs, or fruit fly,⁷⁰ and milk did not escape entirely. A man wrote to convey the results of his wife's independent research which concluded that the cause of polio was the tall metal containers used to make milk shakes in cafes and milk bars. She argued they were not sterilised adequately and that it would have been better

⁶⁷ Telegram PK to Commissioner, 17 February 1956, BL, ACC 1003, AN 120/4, 44/56, pp.1-2. The letter following included many laudatory testimonials to the naturopath's work.

⁶⁸ Letter AEN to Minister for Health, 27 January 1956, pp.24-26.

⁶⁹ Letter Digger to Commissioner, 27 January 1956, p.23.

⁷⁰ Letter SJ to Commissioner, 14 January 1956, pp.3-7.

to use disposable waxed paper containers.⁷¹ Food was targetted in other forms.

Regarding Poliomyelitis and its cause, may I suggest that it could be transmitted through the tomato, which most people eat raw and often from plant affected by wilts which is caused by a virus disease. I feel sure that your Department has already investigated this field, however little things are overlooked.

I trust that you will accept this as merely a suggestion to help eradicate this crippling scourge from our community and would be glad if you would be good enough to reply at your convenience.⁷²

Similar themes recurred in correspondence to the press where some writers linked their facts together in interesting ways. A correspondent from Midland Junction targetted one of the chief weapons used in the control of flies.

I think the spraying of fruit and vegetables with DDT and similar sprays may have a bearing on the polio position. These sprays were a product of World War II. From this time onward there has been an upward trend in the number of cases. As the summer comes on, fruit, often sprayed with DDT appears, and if eaten unwashed, particularly by children, may readily have a paralytic effect on the muscles and stomach. Research from cold countries which do not

⁷¹ Letter CB to MO, Perth, 14 January 1956, pp.3-7.

⁷² Letter WHJ to Commissioner, Perth, 1 February 1956, p.30.

grow fruit which require these sprays would be interesting in comparison.⁷³

The reply of a Public Health Department spokesperson was unequivocal, “One of the most explosive polio epidemics of all time occurred among the Eskimos of Canada’s frozen tundra”.⁷⁴ The handling of foodstuffs was always an area of controversy where the quest for better hygiene was challenged. I. J. Blotnicki of Subiaco wrote to point out that it was impossible for those who handled foodstuffs to keep their hands hygienically clean, but that improvements could be made by introducing the use of tongs, and more frequent hand-washing.⁷⁵

Frustration and bewilderment over some aspects of Public Health Department policies also emerged. During the first weeks of the epidemic Shackleton resident Agnes F. Bland wrote to ask what research into polio had been conducted in Western Australia in the past two years. She drew attention to a paper by the World Health Organisation which pointed out that polio epidemics were known

⁷³ DN, 1 February 1956, p.4.

⁷⁴ DN, 1 February 1956, p.4. Killalea, A. (1995). *Scourge*, pp.135-6. Summary of the worst epidemics.

⁷⁵ WA, 6 February 1956, p.4.

to occur in “countries with a high standard of living, with all the best in hygiene”.⁷⁶ Quoting the London *Times* which had reported that in countries where “filth, flies, absence of sanitation, overcrowding and entire lack of hygiene prevailed, people developed resistance to the virus”, she questioned why the public were being urged to “become even cleaner and more hygienic”.⁷⁷ Since the cause of polio evidently did not lie amongst the “filth of underdeveloped countries,” where she believed “most other scourges of humanity” were to be found, she considered the public should demand that governments undertake more research to discover the real causes of polio and defeat the “fearful scourge”.⁷⁸

Jessie Richardson from Gnowangerup, a physiotherapist with fifteen years experience at the Children’s Hospital in NSW, wrote to criticize the “casual way” she felt polio was treated in Western Australia.⁷⁹ In her experience even non-paralytic cases of polio were hospitalised at the IDH in New South Wales where they were kept in isolation for three weeks. All who attended them had to wear “caps masks and gowns”, contact with other children in the

⁷⁶ WA, 30 January 1956, p.4.

⁷⁷ WA, 30 January 1956, p.4.

⁷⁸ WA, 30 January 1956, p.4.

⁷⁹ WA, 24 February 1956, p.4.

family was prevented, and parents could not visit during the first two weeks. Richardson observed that in Western Australia attitudes to isolation were far more casual. "Contacts still go to school and serve in shops - including food" she said, and "victims" of non-paralytic polio mixed freely in the community as soon as they felt well enough to get about.⁸⁰ She believed that the "common people" in Western Australia needed the protection of a much stricter policy of isolating polio sufferers and contacts. Richardson regarded the Public Health Department as at fault and the sting came in the tail of her letter when she wrote -

WA made a ludicrous spectacle of itself when the Queen was here with its ban on handshakes and the six feet keep-your-distance rule which was not considered necessary in NSW and Victoria, which were also in the throes of a poliomyelitis epidemic while she was there.⁸¹

Her anxiety about the lack of isolation between contacts in 1956 may have been well founded, but her argument was undermined by the illogical criticism of the West Australian "keep-your-distance" rule enforced during the royal visit.

By the end of March the 1956 polio epidemic had run its course,

⁸⁰ WA, 24 February 1956, p.4.

⁸¹ WA, 24 February 1956, p.4.

and the immunisation campaign, which was scheduled to begin in July, had moved to centre stage in the attentions of both the community, and the Public Health Department. The number of reported infections declined from 65 in March to 23 in April and 16 in May, after which there were only 9 more before the end of the year.⁸² One case of polio was reported in September and none in October and November. While the effects of immunisation were still building up, the virus was not in epidemic mode.

By the end of December 225,166 doses of Salk vaccine had been administered in Western Australia.⁸³ Despite the commencement of the troublesome period of school holidays, only one more reported infection was added to the list. The decline in the incidence of polio heralded a new era in which, thanks to the meticulous planning of the Public Health Department, Western Australia was to become permanently freed from the fear, the ravages, and the frustrations wrought by the polio virus.

⁸² *Public Health 1956*, (1958). Appendix VII, p.55.

⁸³ *Public Health 1956*, (1958). Appendix VII, p.58, see Ch. 8 below.

Figure 22: *Public Health 1955, (1956).* Appendix VII, p.56, BL, 614.09 WES.

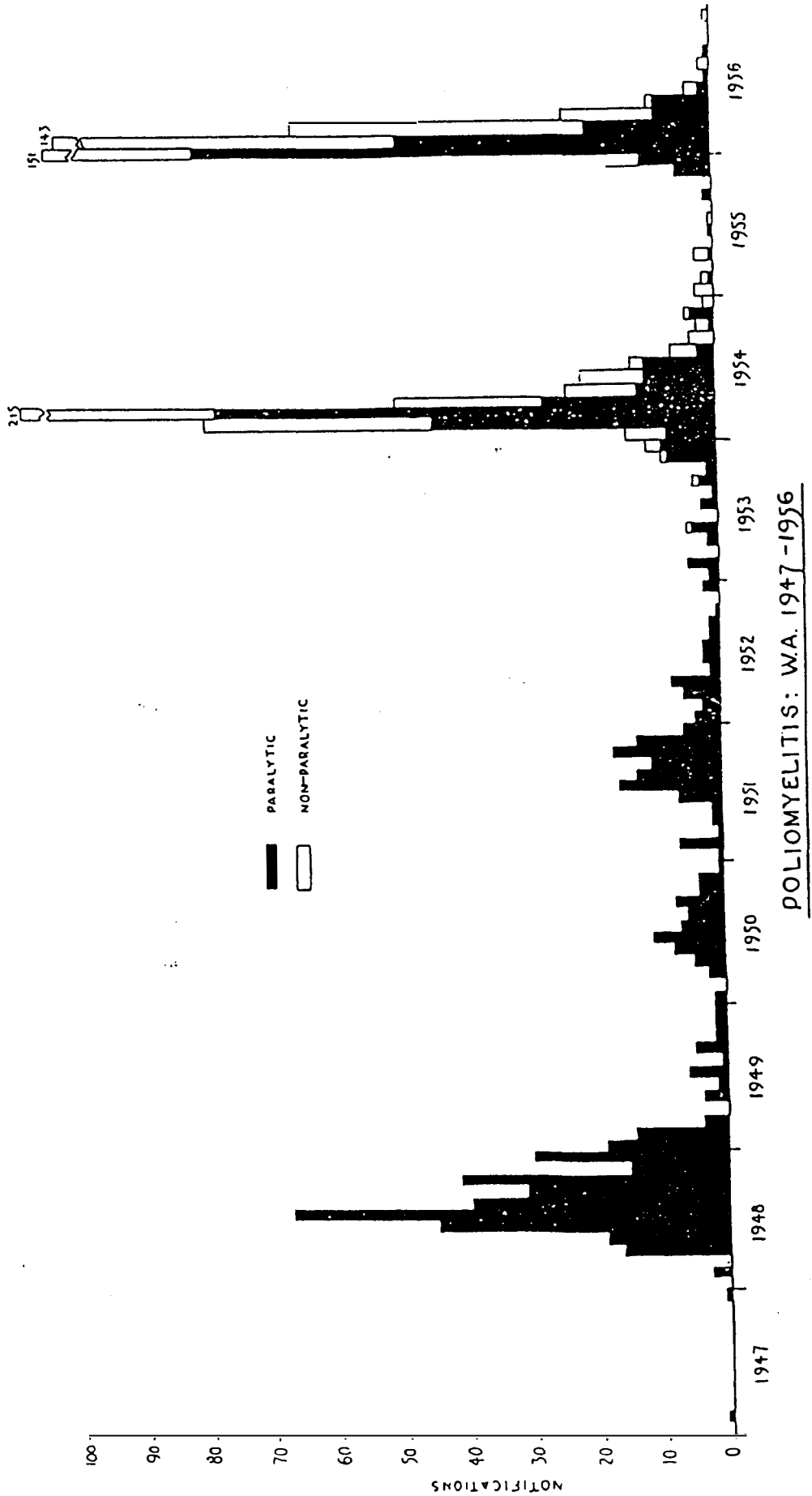
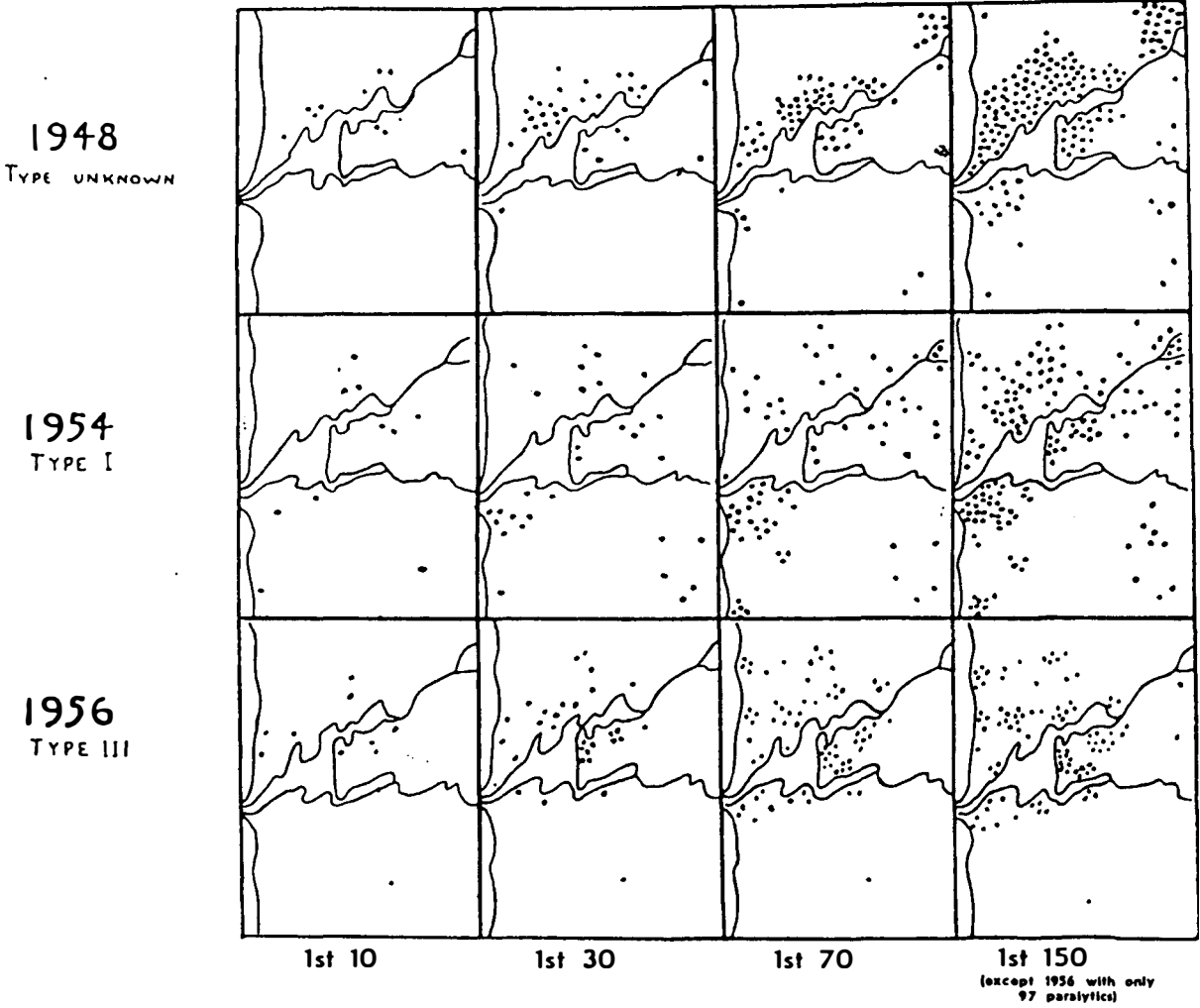


Figure 23: *Public Health 1955, (1956).* Appendix VII, p.57, BL, 614.09 WES.

SERIAL SPOT MAPS OF THREE POLIOMYELITIS EPEDMICS
IN PERTH, WESTERN AUSTRALIA



CHAPTER 8: Immunisation: the war against polio

The mass immunisation campaign,¹ which began in 1956, was represented in the press as the "anti-polio war". Snow, who had served in the British army, did not shrink from comparing the campaign to a military operation, with "an objective, a plan, logistics, reconnaissance, and even propaganda".² The day the first injections were given provided Snow with the perfect occasion to demonstrate his point. Looking much like airmen loading a bomber in preparation for a raid, he and the staff of one of the specially prepared mobile clinics were photographed filling the refrigerator with Salk vaccine, in readiness for the assault on the country districts.³ The "anti polio war" had begun. Photo opportunities over, the four mobile clinics left to commence

¹ The subject of this chapter warrants further investigation that extends beyond the purpose of this thesis. I have explored how the people and the health authorities in WA responded to the mass immunisation campaign, but further work is possible to show the connections between this and the negotiations the Commonwealth entered into to secure supplies of the vaccine and supply it to the states. Detailed evidence is available in the following files which I have examined, held by the Australian Archives, Canberra. Poliomyelitis Immunisation Campaign, AA, A 463/17, 57/27, Poliomyelitis Immunisation Policy, AA, A4940/1, C889, Interstate Committee on Poliomyelitis, AA, A1658/1, 617/1/17, Poliomyelitis - general polio vaccine: policy, AA, A1658/1, 259/1/10, Poliomyelitis Vaccine, AA, A4940/1, C1450, Salk vaccine manufacture, AA, A463/17, 1957/25, Dr P.L. Bazeley, AA, A463/17, 1957/26, Salk poliomyelitis vaccine - manufacture in Australia, AA, A463/17, 1957,25. A report is available by Bazeley, P.L. (1956). "Immunisation against poliomyelitis", *MJA*, 1, 20, 19 May, pp. 821-828. A general account can be found in Brogan, A.H. (1990). *Committed To Saving Lives: a history of the Commonwealth Serum Laboratories*, Melbourne: Hyland House.

² Snow, D.J.R. (1981). *Progress*, p.70.

³ WA, 2 July 1956, p.8.

operations, two in the country, and two in the metropolitan area.⁴

The Commonwealth Government agreed to provide the states with free Salk vaccine,⁵ and they had the responsibility of organising its distribution to the population according to agreed priorities, which included that children under fifteen years of age be immunised first.

There were two features of the Western Australian immunisation campaign that reveal the dogged ingenuity of Snow. Mobile clinics were the first, and the development of a new type of syringe was the second. Mobile clinics were created from four caravans, three of which were purpose built, at a cost of one thousand pounds, and a fourth was created by modifying a van built earlier to transport respirator patients to Perth.⁶ The immunisation caravans, which were towed by two ton Bedford trucks, were modified versions of those already used by the school dental service. They were provided with running water, electrical power,

⁴ WA, 2 July 1956, p.8; WA, 3 July 1956, p.6; Buxton, (1977). *Pollomyelitis*, p.80. The South Australian Government employed exactly the same strategy, and may have copied the design of WA's mobile clinics.

⁵ Australian Health Information Service, (1965). *Health in Australia*, p.9. Between 1965-65 the Australian government expenditure on polio vaccine amounted to £3,867,000.

⁶ *Public Health 1956*, (1958). Appendix VII, p.58. See Ch. 7 above.

sterilization facilities and refrigeration to preserve the potency of the vaccine. The refrigerators had to be run on batteries charged by small, petrol driven, generators because kerosene powered refrigeration were too unstable for the task. The Sydney City Council wrote to the Commissioner seeking information regarding the mobile units used in WA⁷ so that it could manufacture one for its own use, and the South Australian Health Department also employed mobile units in their campaign.⁸

The second feature was the special arrangements made to provide the clinics with an adequate supply of sterilized syringes and needles. A separate needle was required for each child, and each syringe had the capacity for ten injections. After use both items were manually checked and cleaned before being sterilized, for a minimum of one hour, in dry heat of 160 degrees centigrade.⁹ A chrome-copper syringe and needle carrier with the capacity to hold supplies for one hundred inoculations was invented and

⁷ Letter, 10 October 1956, and reply 15 October 1956, BL, ACC 1003, AN 120/4, 1242/5, pp.157-9.

⁸ Memos, BL, ACC 1003, AN 120/4, 806/57, pp.44-48.

⁹ *Public Health 1956*, (1958). Appendix VII, p.58; See also photos.

manufactured for the campaign.¹⁰ The Commissioner, who sent the details of this innovation to Health Departments in other states, was congratulated on his initiative by Director of Public Health of New South Wales.¹¹

In a move that coincided with the Government's plans for the mass immunisation campaign, it was announced that Snow, the 43 year old Englishman, would celebrate his ninth year in Australia by being elevated from the position of Government Epidemiologist to the newly created role of Director of Epidemiology.¹² Small reward for his thoroughgoing efforts in the "war against polio".

The first injections of Salk vaccine administered publicly were given on 29 June 1956.¹³ A schoolgirl from Wundowie, ten year old Beatrice Oldridge, wrote to the *Daily News* and requested that she be the first to be immunised with Salk. Her wish was granted and, like a true soldier, she and received her vaccination without

¹⁰ *Public Health 1956*, (1958). Appendix VII, p.58. The initial order was for 60 carriers, 800 syringes and 16,000 needles.

¹¹ Letter, 24 February 1956, BL, ACC 1003, AN 120/4, 1242/55, p.36.

¹² WA, 29 May 1956, p.1.

¹³ WA, 30 June 1956, p.2.

flinching, in front of the admiring gaze of Snow and the Commissioner.¹⁴ In order to derive maximum benefit from the occasion a photograph of Beatrice, smiling at the needle in her arm, appeared on the front page of the *Daily News* alongside that of a seven year old country girl named Suzanne who, having suffered from polio as a baby, was reported to have just taken her first step. The Commissioner was also photographed immunising his son Robert and the Minister of Health's four "curly haired grand-children", who were included in the first batch. They too were reported to have received their vaccinations bravely; and they enjoyed the free toffees, purchased with a special grant from the Lotteries Commission, which were distributed to all vaccinees.¹⁵

The reported reaction of children to the commencement of the immunisation campaign replicated the triumphant or heroic style that had characterised the stories of those who had suffered from polio itself. Four year old Mary Nulsen, grand-daughter of the Minister for Health, was declared that "it didn't hurt at all",¹⁶ and when the first two mobile clinics began their work, rather than

¹⁴ DN, 29 June 1956, p.1.

¹⁵ WA, 30 June 1956, p.2.

¹⁶ WA, 30 June 1956, p.2.

showing fear or pain, the children were seen to take the Salk vaccine needles in their stride - "buoyed by the camaraderie of each other's presence, most of them treated the experience as a joyous adventure".¹⁷

Prominence was given to children of three American families, who had received their first two doses in the United States before moving to Perth and now became the first in Western Australia to be given their third injection to complete the course. One of the children, Dale Bautel, had been amongst the "polio pioneers", children who had taken part in Salk trials, in Michigan.¹⁸ Lest the public wonder at the American children receiving priority treatment, Snow used the moment to demonstrate an example for others to follow. He carefully explained the importance of having children immunised and completing the cycle of injections, and expressed the view that West Australian parents who had doubts about Salk vaccine would be reassured when they observed the confident approach adopted by the American mothers.¹⁹ Above all, Snow claimed that the early vaccination of the American children

¹⁷ WA, 3 July 1956, p.2.

¹⁸ Smith J.S. (1990). *Patenting the Sun* grew from her experience as a "polio pioneer".

¹⁹ WA, 30 June 1956, p.2.

stood as a “small gesture of appreciation to the country responsible for the Salk Vaccine”.²⁰

It was part of the strategy of the campaign to show that things were progressing successfully and smoothly but, while there were only three of four accidents reported, such as when a needle broke in the arm of a child, the injections were often painful for the children who received them, and some parents were still suspicious that live virus might be present in Salk after all.²¹

Nevertheless, during the first two months of the immunisation the consent rate²² was so high that the Commonwealth Serum Laboratories was requested to send an extra ten thousand doses of vaccine, which it agreed to do for one month only.²³ Eventually the Public Health Department was able to record that its careful planning had produced the intended results. Between 2 July and 31 December 1956 a total of 225,166 doses of Salk vaccine were administered in Western Australia, after which it was announced

²⁰ WA, 30 June 1956, p.2.

²¹ File: Poliomyelitis Immunisation Campaign: Accidents, BL, ACC 1003, AN 120/4, 1555/56.

²² DN, 4 July 1956, p.1; 5 July 1956, p.1. By 4 July the 4600 children had received injections, 1000 more than planned.

²³ Telegram and reply, BL, ACC 1003, AN 120/4, 1242/55, pp.112-113.

that no untoward reactions had been recorded.²⁴ By that time half of all West Australian children up to the age of fourteen had received their first two injections along with 4,936 who were between fifteen and nineteen years of age.²⁵ A further 5,827 special cases of persons over twenty years of age were also immunised. The plan was to complete the immunisation of all children by the end of 1957, after which the vaccine would be made available to other age groups in the community.

The Public Health Department carefully monitored any reactions to the Salk vaccine. After 100,000 doses had been administered, Snow reported to the Director-General of Health that there had been no “notable” reactions, other than “a few rashes of transitory and bizarre type”, and provided notes on a case of severe and “unusual familial sensitivity to some component in Salk vaccine”.²⁶ Snow suggested that any similar experiences should be gathered from around the states and shared so that the health authorities could learn from the experience of others. Perhaps he was sensitive to the possibility that there may be undiscovered

²⁴ *Public Health 1956, (1958)*. Appendix VII, p.58.

²⁵ *Public Health 1956, (1958)*. Appendix VII, p.58.

²⁶ Letter, 17 October 1956, BL, ACC 2488, AN 120/25, 1623/56, p.2.

dangers to uncover. However the vigilance of the department was matched by the vigilance of the public, who readily reported any strange reactions experienced, in them or their children, following Salk injections, and just as readily sought financial compensation for any difficulties they experienced.

Between October 1956 and August 1963 forty three cases of suspected reaction to Salk injections were reported to the Public Health Department. Twelve were in children under ten years of age, one of whom was identified as having polio. The bulk of the cases, twenty three in all, were in adult members of the population. Slightly more of the sample reported problems after their third injection, the most common form of reaction being either rash or muscle pain, and sometimes vomiting and collapse.²⁷

Snow later circulated a report on neurological sequelae attributable to Salk Vaccine, and used for his study three adults, aged 50, 54, and 57, who had reported in this way.²⁸ Not counted in the total of forty three cases mentioned are the figures from an

²⁷ File, Salk Vaccine Reactions, BL, ACC 2488, AN 120/25, 1623/56, calculations my own.

²⁸ File, Salk Vaccine Reactions, BL, ACC 2488, AN 120/25, 1623/56, pp.141-2.

additional report made by an office of the Public Works which noted that, out of its staff membership of 105, a high proportion of those who had the polio needle reported sick with the 'flu, whereas the proportion amongst those who did not receive vaccination was much smaller.²⁹ Leaving the Public Works Department staff aside, the basic foundation of forty three reactions reported to 1963, does not amount to a very high rate of problems in the mass immunisation programme. Between 1956 and 1963 it appears that only one person could be construed as having contracted polio in the process of immunisation.

Planning for the immunisation campaign commenced long before the mobile clinics first drove away. The provision of a suitable polio vaccine for Australia had been the concern of the federal Minister for Health since at least as early as 1952. In November of that year Dr P. L. Bazeley of the CSL had been sent to Pittsburgh to work with Jonas Salk,³⁰ the agreement being that when a reliable vaccine had been created, Bazeley would return and make

²⁹ File, Salk Vaccine Reactions, BL, ACC 2488, AN 120/25, 1623/56, p.180. Of the total (105) 56 had injections and 25 were sick with flu. Of the 49 who did not have injections, only 7 had the flu.

³⁰ File - Poliomyelitis Vaccines, Statement to the Federal Parliament by Sir Earle Page, 28 April, 1955, BL, ACC 1003, AN 120/4, 411/55, p.26.

his knowledge available to enable its production in Australia. The Salk trials were carefully monitored by the CSL and, as developments progressed in Pittsburgh, preparations were made to provide the facilities, and the monkeys necessary to produce vaccine in Australia.³¹

After Dr Francis of Ann Arbor announced, on 12 April 1955, that Salk gave 80% protection against paralytic polio and 60% against other types of the virus, the drug companies Parke, Davis and Company and Eli Lilly International Corporation expressed an interest in importing American manufactured Salk into Australia. The federal Minister for Health met first with representatives of these firms,³² and then with the epidemiological committee of the NH&MRC, which suggested that 100,000 courses of vaccine per month be imported into Australia for six months, to cover the period until the CSL was in full production. At first it was thought that imported stocks would be used to give Australian children their first two injections, and by the time they were ready for their third, the CSL would be producing enough stock to cover

³¹ Statement by Sir Earle Page, 28 April, 1955, BL, ACC 1003, AN 120/4, 411/55, p.26.

³² Meeting held 22 April 1955, Statement to the Federal Parliament by Sir Earle Page, 28 April, 1955, BL, ACC 1003, AN 120/4, 411/55, p.25.

The NH&MRC understood the risks of using imported vaccine. The time lag between its manufacture and use, including the possibility that the preservatives used may begin to break down, were factors which had to be considered.³³ Salk vaccine could be kept safely in bulk storage at 0-2 degrees centigrade for several weeks and when placed in ampoules for distribution it retained its potency for another month if kept at that temperature. There was the risk of lost potency if it was alternatively frozen and then thawed for use,³⁴ and if kept at room temperature potency fell to 50% within forty eight hours.³⁵ Therefore, once removed from cold storage and opened a vial of Salk vaccine had to be used as quickly as possible. The Western Australian Public Health Department used the "Aero-Jablex" Ice Box to keep vaccine cold while being held for use, or transported over short distances.³⁶ The need to maintain maximum levels of potency in the vaccine also meant

³³ Notes - NH&MRC Committee, BL, ACC 1003, AN 120/4, 411/55, p.19.

³⁴ Letter, Snow to Town Councils, BL, ACC 1003, AN 120/4, 593/56, pp. 85-86.

³⁵ Letter, 17 January 1956, BL, ACC 1003, AN 120/4, 1242/55, p. 27

³⁶ Letter, CPH to Agent General, London, BL, ACC 1003, AN 120/4, 692/64, pp.1-2, 5; and Snow to Bazeley, 19 January 1956, BL, ACC 1003, AN 120/4, 1242/55, p.19. The plastic ice box, which had a capacity of one cubic foot, was manufactured in England and was recommended to Snow by the WA Red Cross Blood Transfusion Unit. Snow sent the information on to Bazeley in the hope that he might pass it on to Dr CE Cook for the information of other States.

that once the immunisation campaign had commenced its progress had to be carefully maintained to avoid wastage and risk to those inoculated.

The Public Health Department had maintained a close watch on the development of Salk vaccine and collected reports of field trials from the United States of America.³⁷ The Commissioner was keen to have supplies of the vaccine as soon as possible and three days after the announcement by Dr Francis he urgently telegraphed the Sydney representatives of Eli Lilly and Co seeking the cost and availability of Salk.³⁸ No import licenses had yet been granted to this company and the meeting to discuss the matter with Sir Earle Page, the federal Minister for Health, had not yet been held.³⁹

The Public Health Department also wrote to Parke, Davis and Company, Sydney, who indicated that they had been granted a limited temporary license to import small quantities of vaccine. Priced at £3/5/7 per 9 cc. vial the Parke, Davis vaccine would have

³⁷ File - Poliomyelitis Vaccines, BL, ACC 1003, AN 120/4, 411/55, for example, report from Eli Lilly and Co, Indianapolis, unnumbered pages; pp.1-8, Evaluation of field trial conducted by Dr Robert F Kornes.

³⁸ Telegram, BL, ACC 1003, AN 120/4, 411/55, p.10.

³⁹ Telegram, BL, ACC 1003, AN 120/4, 411/55, p.11.

cost in excess of £100,000 per 100,000 thousand doses, provided sufficient quantities could have been obtained.⁴⁰ The Public Health Department showed some enterprise in attempting to gain vaccine for the children of Western Australia and while altruistic motives may have been paramount, there can be no doubt that it would have been a significant feather in Western Australia's cap if the plan had worked.

Pressure was also brought to bear from other quarters. Members of the public, and in particular some Local Authorities, showed that they were excited over the success of Salk vaccine and keen to avail themselves of its saving power. The secretary of the Kalgoorlie Road Board wrote to the Commissioner -

As you are aware, much public interest has been aroused with the announcement of Dr Jonas Salk's Polio vaccine. My Board is very much alive to the advantages gained by the conducting of various immunisation clinics and... I was directed to approach your Department and request that the name of the Kalgoorlie Road Board be recorded as a Local Authority requiring this vaccine when it becomes available.⁴¹

⁴⁰ Letter, BL, ACC 1003, AN 120/4, 411/55, p.14, calculations by Snow.

⁴¹ Letter, Kalgoorlie Road Board to CPH, 22 April 1955, BL, ACC 1003, AN 120/4, 411/55, p.12.

Public receptivity to Salk was high but further reflection on the question of the safety of imported vaccine,⁴² coupled with controversy over the infamous “Cutter” incident, led the epidemiological committee of the NH&MRC to reconsider the plan to utilise American vaccine. The “Cutter” incident was crucial to this decision.

During an American Salk trial held in 1954 live virus was found to be present in vaccine manufactured by the Cutter Laboratories of Berkeley, California.⁴³ The vaccine was hurriedly withdrawn but the mistake resulted in the infection of 204 children, three quarters of whom became paralysed and eleven died.⁴⁴ The incident seriously undermined public confidence in the use of Salk both in America and Australia. In May 1955 a meeting of the public health committee of the NH&MRC resolved that -

No vaccine should be permitted to be imported into Australia
by any agency unless it complies with standards acceptable

⁴² The question of the safety of Salk was not the only concern. Immunisation against Diphtheria and Whooping Cough had been suspended during epidemics of polio, especially since, in the 1950s, a Victorian doctor had found a link between them and the incidence of polio. The Public Health Department carefully monitored this issue from 1950. See *Poliomyelitis and Injections*, ACC 2849, AN 120/26, 1273/63, pp. 3, 9, 22-26, 31-32.

⁴³ Gould, T. (1995). *A Summer Plague*, pp. 153-157. The Kolmer/Brodie debacle of the mid 1930s was similar to this incident.

⁴⁴ Paul, J.R. (1971). *History*, p. 437. A mortality rate of 5%.

to the Commonwealth Department of Health.⁴⁵

The subject was again discussed at length on 22 July,⁴⁶ and in September, with the result that the committee reversed the decision to import import Salk vaccine manufactured by American drug companies and recommended that the Commonwealth produce its own.⁴⁷

Progress with the manufacture of Salk vaccine outside America was followed with interest, and pressure had been brought to bear on health authorities in Australia to follow suit.⁴⁸ A motivating factor was the knowledge that Canada had used locally manufactured Salk vaccine without any sign of a mishap, and a similar story had emerged with respect to Denmark and South Africa. The Public Health Department had received a lengthy report on the Canadian immunisation campaign which included a section titled "Free Enterprise Until It Hurts". Critical of the American approach to public health it concluded with the statement -

⁴⁵ Report, May 1955, BL, ACC 1003, AN 120/4, 411/55, p.80.

⁴⁶ Minutes, NH&MRC, May 1955, BL, ACC 1003, AN 120/4, 411/55, pp.58-62.

⁴⁷ Letter, Health Department to BMA, 25 October 1955, BL, ACC 1003, AN 120/4, 1242/55, pp.26-28.

⁴⁸ *Hansard*, Vol 140, New Series, 1954, Vol 2, p.984, and Vol 3, p.3695, BL, 328.9412. WES.

The introduction of anything so important as a new polio vaccine amounts to a national emergency and calls for some form of national control.⁴⁹

The question of quality control became a priority concern in Australian public health and the fortieth session of the NH&MRC Council, which met in Melbourne in November 1955 resolved that -

The Council considers the prevention of Poliomyelitis to be a public health problem of high importance. The use of Salk vaccine in Canada and other countries has demonstrated that the vaccine, when prepared under strict supervision and scientific control, is a safe and effective prophylactic.⁵⁰

Financial and safety considerations aside, the decision to manufacture Salk vaccine in Australia was made easier by the fact that during World War II the power of the federal government to intervene in the social life of the community life had increased significantly, particularly with respect to public health and welfare. By the mid 1950s Australians had come expect that their government would provide them with just such a safety net.

⁴⁹ Report, 14 July 1955, BL, ACC 1003, AN 120/4, 411/55, p.39.

⁵⁰ Letter, CPH to BMA, 25 October 1955, BL, ACC 1003, AN 120/4, 1242/55, p.27.

Prime Minister Menzies wrote to all state premiers with the news that the Commonwealth would produce Salk vaccine at the CSL. He advised that, commencing in June 1956, the CSL would produce 440,000 doses of Salk vaccine each month which would be distributed to the states pro-rata on the basis of population.⁵¹ It was calculated that every four weeks, until immunisation was completed, Western Australia would receive an instalment 30,000 doses of vaccine.⁵²

The Commonwealth made Salk vaccine available free of charge for voluntary immunisation programmes provided the States accepted responsibility for administration of the campaign, agreed to keep sufficient records to enable adequate surveillance and accurate analysis of results, and observed the vaccination priorities established by the NH&MRC.⁵³ It was agreed that, apart from the

⁵¹ Letter, RG Menzies to ARG Hawke, 6 September 1955, BL, ACC 1003, AN 120/4, 411/55, p.69; Reply, 10 October 1955, p.78; Letter, NSW Public Health Department to BMA, 25 October 1955, BL, ACC 1003, AN 120/4, 1242/55, p.28.

⁵² *Public Health* 1955, (1956). Appendix VII, p.53; WA, 25 February 1956, p.10; Press Statement, Federal Minister for Health, 12 June 1956, BL, ACC 1003, AN 120/4, 1242/55, p.97. The remainder of the allocations were - NSW, 75,000, Victoria 26,000, Queensland, 30,000, South Australia, 18,000, Tasmania 18,000, ACT, 1,500, NT, 680.

⁵³ Statement by Sir Earle Page, 30 August 1955, BL, ACC 1003, AN 120/4, 411/55, p.71.

reservation of some vaccine for pregnant women, the first priority was to immunise children aged fourteen and under.⁵⁴

Sir Earle Page was emphatic that thorough checks would be made to ensure that no live virus was released to the public, and promised that, if necessary, an attenuated strain would be used.⁵⁵

Surveillance was undertaken by the federal government which established a vaccination surveillance committee.⁵⁶ Doctors in all states were required to complete a report for every suspected, or actual case, of polio, and to forward specimens of blood and faeces from every case of polio that occurred in a vaccinated subject.⁵⁷

Once the terms and conditions of the Commonwealth's offer had been accepted the Commissioner sought approval for the expenditure necessary to establish the administrative structures to

⁵⁴ *DN*, 4 July 1956, p.1. This policy was adhered to in Western Australia.

⁵⁵ Statement by Sir Earle Page, 30 August 1955, BL, ACC 1003, AN 120/4, 411/55, p.71.

⁵⁶ Vaccination Surveillance Committee, BL, ACC 1003, AN 120/22, 983/56, pp. 9, 13, 84. The Commonwealth convened a meeting of the heads of Virus Reference Laboratories on 14 July 1956. The meeting set the standards for collection and transmission of specimens, alternative diagnostic laboratories, the extension of diagnostic facilities, and recommended that the NH&MRC provide funds for training technicians in the special methods required for cultivating viruses. Present were FG Morgan and PL Bazeley of the CSL, Sir Macfarlane Burnet, Walter and Eliza Hall Institute, Melbourne, N Stanley, Prince Henry Hospital, Sydney, P Warner, Institute of Medical and Veterinary Research, Adelaide, A Ferris, Children's Hospital, Melbourne, and C E Cook.

⁵⁷ Circular 438, 19 July 1956, BL, ACC 1736, AN 120/122, 983/56, p.13; Telegram 27 June 1956, BL, ACC 1003, AN 120/4, 1242/55, p.101a.

support the campaign, and to construct four mobile clinics.⁵⁸ The anticipated cost was £25,000 in the first year, and £15,000 in the years to follow. All decisions, including the choice to use Australian Salk vaccine, were placed before SPAC for its approval.

Careful detailed planning followed.⁵⁹ The main components of the effort were a poliomyelitis immunisation unit, within the Public Health Department, that maintained a central registry. The unit was established in offices developed on the site of a former infant health centre at 11 Stirling Street, Perth.⁶⁰ The campaign team consisted of four doctors, four driver-attendants, two clerks, one typist and two laboratory assistants.⁶¹ Each mobile clinic was staffed by a doctor, a medical orderly and, in the metropolitan area, two Red Cross volunteer workers assisted. Supplementary static clinics were established in selected local government areas.⁶²

⁵⁸ Letter, CPH to Minister for Health, 25 October 1955, BL, ACC 1003, AN 120/4, 1242/55, p.2.

⁵⁹ For example see letters in file, BL, ACC 1003, AN 120/4, 1242/55, 2/12/55, pp.6-7; p.8, p.16; p.20; pp. 44-45; p.53; File - Correspondence re Static Clinics, BL, ACC 1003, AN 120/4, 393/56.

⁶⁰ Letter Undersecretary for Health to Secretary, Railways Commission, 24 November 1955, BL, ACC 2488, AN 120/26, 354/56, pp.1-2,5; Secretary of Railways to CPH, 14 April 1960, p.90. The property was owned by the Railway Commission.

⁶¹ *Public Health 1956*, (1958). Appendix VII, p.55.

⁶² Letter, CPH to Minister For Health, BL, ACC 1003, AN 120/4, 1242/55, pp.6-7; Letter, Snow to Red Cross Society, BL, ACC 1003, AN 120/4, 593/56, p.53.

The Public Health Department received widespread support from public bodies and organisations, including the departments of Education and Infant Health, Local Health Authorities, Public Works, the Red Cross, and Parents and Citizens' associations.⁶³ In addition the Lotteries Commission donated funds to provide an incentive in the form of sweets that were given to the children at the time of their injections.

In order to service all city and country children aged fourteen years and under as quickly as possible it was planned to dispense the injections using a combination of mobile and static clinics.⁶⁴ Western Australia was divided into twenty four zones, twelve in the metropolitan area containing 6000 school children, and twelve containing 3000 children in the country districts. On the basis of delivering 300 injections each day in the city and 150 each day in the country, it was calculated that by the end of 1956 half of the state's children would have received two of the necessary three doses,⁶⁵ a target that was in fact achieved.⁶⁶ Although some

⁶³ *Public Health 1956*, (1958). Appendix VII, p.58.

⁶⁴ *Public Health 1955*, (1956). Appendix VII, p.55.

⁶⁵ *Public Health 1956*, (1958). Appendix VII, p.55.

⁶⁶ *Public Health 1956*, (1958). Appendix VII, p.58.

children waited ten months for their first injection, all received two of the required three doses within twelve months.⁶⁷ The exception to the rule was the north west which, because of its remoteness, formed a zone of its own where the resident District Medical Officers, were made responsible for administering the vaccine, at this stage the only local doctors empowered to do so.⁶⁸

As the plans for the mass immunisation campaign evolved they were regularly featured in the press.⁶⁹ Pictures of the special mobile clinics were published under the heading "To Wage War on Polio",⁷⁰ and a photo of the immunisation consent card was accompanied by an explanation for its use.⁷¹

The question of the safety of Salk vaccine manufactured in Australia continued to dog the Public Health Department. The public was reassured of the safety of Salk with word from the experts and images of science at work. A white coated laboratory

⁶⁷ *Public Health 1955*, (1956). Appendix VII, p.56.

⁶⁸ *Public Health 1955*, (1956). Appendix VII, p.56; WA, 16 June 1956, p.1; Letters CPH to Town Clerks, and District Medical Officers of Carnarvon, Broome, Derby, Port Hedland, Roebourne, Wyndham, Onslow, Halls Creek, Marble Bar, Shark Bay and Nullagine, BL, ACC 1003, AN 120/4, 660/56, pp.1-2; Note attached to p.26. Snow calculated that there were 2,525 people in the North West in need of vaccination.

⁶⁹ WA, 7 May 1956, p.1.

⁷⁰ WA, 9 March 1956, p.1.

⁷¹ WA, 5 April 1956, p.10.

technician was pictured engaged in manufacturing Salk vaccine.⁷²

Alongside there picture appeared a report which stated that the federal council of the British Medical Association (BMA), which relied heavily on Bazeley's advice, had declared Salk "safe", and was strongly supportive of the immunisation campaign. Bazeley stated that Salk manufactured in Australia would be subjected to a second check conducted by a panel of independent experts. This news was publicised early in 1956 because many parents remembered the "Cutter" incident and some were yet to be convinced of the safety of immunisation. The Commissioner, who was keen to highlight the beneficial effects of Salk rather than the risks, repeated the assurance that Australian Salk vaccine would be tested "even more rigidly" than in Canada and the United States of America.⁷³ From America Sir Macfarlane Burnet, Director of the Melbourne based Walter and Eliza Hall Institute, and one of those involved in the decision to produce Salk locally, stated that it would be manufactured correctly and properly tested.⁷⁴

An element of doubt continued to lurk in the popular mind and,

⁷² DN, 2 March 1956, p.1.

⁷³ WA, 1 March 1956, p.2.

⁷⁴ WA, 5 April 1956, p.10.

despite such eminent reassurance, any form of questioning became disturbing to professionals and public alike. *Truth* published an article in which seven West German doctors were claimed to have said that the children of American service families immunised in Frankfurt had become polio carriers. Fears of “the greatest catastrophe in the history of preventative medicine” had the Commissioner scurrying to cable Bonn seeking verification from the health authorities.⁷⁵ The reply indicated that although the report was garbled, the team of doctors, whose opinion was not shared by “any German Public Medical Authorities”, did have some valid criticisms of American Salk.⁷⁶

Fears of another more insidious kind surfaced. In a letter to the CPH the federal Director-General of Public Health voiced the concern, raised by the Victorian Consultative Council, that immunising migrants on their arrival in Australia should be a priority. The Commissioner replied forthrightly that this was “neither necessary on epidemiological grounds nor desirable for other reasons”, and added -

⁷⁵ Cablegram, 17 April 1956, BL, ACC 1003, AN 120/4, 1242/55, p.105.

⁷⁶ Cablegram, 19 April 1956, BL, ACC 1003, AN 120/4, 1242/55, p.104.

The views and the evidence which lead [them] to make this suggestion are not know to us, but one assumes that the main reason for the proposal is a suspicion that migrants are at present responsible for the the introduction of virus strains to which the Australian community is unaccustomed, and that prompt immunisation of migrants would neutralise this suspected hazard. Strong evidence would have to be brought forward before this can be accepted.⁷⁷

Any existing discrimination towards migrants would be exacerbated by allowing them to have their injections ahead of “long standing residents”, especially if the latter had a lengthy wait before they could be immunised.

Several other safety issues were dealt with by the Public Health Department during the campaign. The question of adequate protection through hygiene, the effect of competing immunisation, and in relation to the immunisation and indemnification of staff.

The need to maintain the highest standards of hygiene were obvious. All items used in the immunisation campaign, whether

⁷⁷ Letter, CPH to DGH, 18 September 1956, BL, ACC 1003, AN 120/4, 1242/55, p.127.

to give injections or preserve the potency of the vaccine, were meticulously tested and checked to ensure their reliability. Syringes were sterilized in a dry heat for one hour at a heat of 160 degrees centigrade, a thorough practice, but one that, in view of the importance of the matter, was not regarded as “over-cautious”.⁷⁸

Public confidence in the campaign would have been undermined had there been the slightest hint of any risk to the children, or ineffectiveness in the administration of the vaccine. The possibility that antigenic interference from other vaccines might reduce the effect of Salk vaccine led to the precautionary measure of recommending that other injections, such as for diphtheria and tetanus, be suspended for four weeks each side of immunisation against polio.⁷⁹

Staff involved directly, and indirectly, in the campaign were amongst the first adults to be immunised Registered Nurses and trainees working in hospitals, and young doctors with families,

⁷⁸ Letter, 24 February 1956, BL, ACC 1003, AN 120/4, 1242/55, p.36.

⁷⁹ Letter, 18 July 1956, DJR Snow to PL Bazeley, BL, ACC 1003, AN 120/4, 1242/55, p.123.

especially those in general practice, were immunised; a decision that required an estimated 4,500 extra doses of vaccine.⁸⁰ The local branch of the BMA wrote with a question concerning the liability of staff who administered the vaccine, to which the Commissioner replied that under Section 365 of the Health Act, doctors would not be held personally responsible for any liability that arose as a result of polio immunisation.⁸¹

A first principle of the campaign was that immunisation was provided on a voluntary basis which required parents to request vaccination for their children using the consent card mentioned above. The Public Health Department aimed to achieve the highest possible rate of immunisation and made it clear that it did not want to cope with large numbers of stragglers. The Commissioner warned parents against adopting a “wait and see” attitude,⁸² and ensured the maximum degree of surveillance and control by denying medical practitioners access to the vaccine until

⁸⁰ Letter, CPH to Director General of Health, BL, ACC 1003, AN 120/4, 1242/55, p.114. There were estimated to be 2,300 registered nurses, 1,200 students, and 600 practising doctors in WA at that time, plus their families, each of which would require two doses of vaccine within a few weeks. Staff in the Health Department itself, and the Treasury, were also provided with polio immunisation, see Memo, 1 November 1957, BL, ACC 1003, AN 120/4, 951/57, p.75.

⁸¹ Letter, 11 June 1957, CPH to BMA, ACC 1003, AN 120/4, 672/56, p.25.

⁸² WA, 16 June 1956, p.1.

the immunisation campaign was completed. This, coupled with the dual constraints imposed by the size of the monthly quota of Salk vaccine supplied to Western Australia, and the plan for delivering it to the community, meant that those who did not attend the clinic when it visited their district faced the daunting prospect of having to wait eighteen months to receive their injections. The strategy also meant that a child who commenced having injections after others had begun would find it difficult to complete the cycle.

It was a deliberate part of the Public Health Department's strategy to educate the community regarding the efficacy of Salk vaccine and to motivate parents to consent to the immunisation of their children. The Health Education Council was enlisted in support, press releases were produced, radio broadcasts were made and addresses were given, particularly to parents and citizens groups. The achievement of an acceptance rate of 97% amongst parents of school children was attributed to the popularity of these talks,⁸³ but publicity and education was not the only motivating factor. The warning that stragglers would have to wait, together with the

⁸³ *Public Health 1956*, (1958). Appendix VII, p.55.

restriction of the vaccine to the departmental outlets, created a 'narrow gate' through which some will have been herded by a long standing fear of the polio virus. In 1956 the departmental policy of operating by persuasion and recommendation had been extended by decisions which had the effect of directing and controlling the community response, while still allowing freedom of choice.

In April, eight weeks before the commencement of the immunisation campaign, the *Daily News* published a series of articles by Lloyd Marshall which aimed to educate and inform the public concerning the history of Salk vaccine the benefits of its use. The first of these traced the history of polio and the second featured a magnified picture of the polio virus alongside another photo of crates of Salk vaccine. "The answer to polio prevention is now in our hands"⁸⁴ it began, and continued to explain the variety and character of the different polio viruses, and the means by which infection was passed on and took hold in the body. Emphasis was given to the faecal contamination theory and the importance of hand hygiene. The third article, which detailed the

⁸⁴ *DN*, 25 April 1956, p.5.

search for a vaccine,⁸⁵ first explained how gamma globulin was made and why its limitations made a more effective prophylactic vaccine necessary. It told of the first stages of research and discovery by Enders, upon whose work Salk had later successfully built and whose vaccine, once accepted by the NFIP, was tested on hundreds of thousands of children in the United States of America.

The failure of the Cutter vaccine was a blemish on the triumph of Salk that was not easily erased. The fourth article, headed "One Terrible Mistake - and people began to have their doubts", attempted to deal with the damage it had caused to public confidence.⁸⁶ It was freely acknowledged that some resistance to immunisation had developed, as revealed by the results of a poll taken in Western Australia in which 56% of those asked favoured inoculation, 26% were against, and 19% were undecided.⁸⁷ Possibly because of this level of skepticism this article attempted to clarify the matter by detailing the investigation that had resulted from the Cutter outbreak, and the faults in the manufacturing process that were identified and corrected. Federal

⁸⁵ *DN*, 26 April 1956, p.5.

⁸⁶ *DN*, 27 April 1956, p.5.

⁸⁷ *DN*, 27 April 1956, p.5.

intervention by the United States government resulted in the application of stricter controls, with the result that confidence in Salk was restored in forty six of the forty eight American states. The author admitted that such setbacks had to be expected in the evolution of medical science, and that doubts had been cast on the efficacy of immunisation, but concluded that “it is undeniably cruel to say so, but it has also been of immeasurable value”.⁸⁸

Australians did gain from not being the first to receive Salk vaccine. As a result of the Cutter incident, vaccine manufactured at the CSL was a “precision product”, like that developed in Canada by the Connaught laboratories of Toronto, and in Denmark, where no children had suffered from “post-inoculation paralysis”.⁸⁹

The story quintessentially expressed Australia in the 1950s, implying that vaccine manufactured at one federally controlled laboratory would be regarded as safer than that created in the “free enterprise” system in which quality control was more difficult to maintain. Public confidence in Salk vaccine was the issue at stake

⁸⁸ *DN*, 27 April 1956, p.5.

⁸⁹ *DN*, 27 April 1956, p.5.

and everything was done to ensure that this was kept at the highest level. The series of articles concluded with the reported comments from nine prominent parents, mostly wives of community leaders and mothers of young families, who all gave their seal of approval to the immunisation of their children against polio.⁹⁰

The Public Health Department enlisted the support of many different sections of the community in the execution of its war against polio. It negotiated the use of the Perth City Council's Beaufort Street diphtheria clinic to serve as one of its static clinics and seconded Dr A.P. Davis, a medical officer from the Perth City Council, to assist with the campaign. Stationary immunisation clinics, at which appointments were required, were established at Fremantle and Princess Margaret Hospitals, the Perth immunisation centre, and in the suburbs of Maylands, Mt Lawley, Osborne Park, Scarborough, Midland Junction and South Perth.⁹¹

⁹⁰ DN, 28 April 1956, p.5. They were, Mrs Charles Court wife of a politician, Mrs A Knight, member of the Kindergarten Union, Mrs Fred Chaney, wife of the MHR for Perth, Mrs I M Dickinson, mother of four, Mrs R H Leach, Mother's Union, Mrs Ross Smith, wife of a Psychologist, Ern Henfry, football coach, Mr R E Halliday, National Fitness Council, Mrs M Ellis, Parent's and Citizens's Federation.

⁹¹ WA, 20 June 1956, p.3; Letter, CPH to Town Clerks, BL., ACC 1003, AN 120/4, 593/56, p.1.

Infant Health facilities at Albany, Bunbury, Collie, Geraldton and Kalgoorlie were also enlisted for this purpose and, in order to gain the full support of the relevant local government authorities for the duration of the campaign, a subsidy of nine pence per inoculation was offered to defray expenses.⁹² As the time for the campaign to begin drew near, comprehensive information was once more made available to the public through the press.⁹³ The assistance of the Red Cross was called for, to provide back-up support for the mobile clinics,⁹⁴ while the Education Department was requested distribute the 200,000 consent cards, a task it believed it would not be able to undertake.⁹⁵

When it came to administering vaccine to Aboriginal communities, the paternalism of the day is clearly evident. In order to achieve parental consent the Commissioner requested that the Commissioner for Native Affairs (CNA), who under Section 8 of the Native Welfare Act was regarded as the legal guardian of all

⁹² WA, 16 May 1956, p.1; Letter, CPH to Town Clerks, BL., ACC 1003, AN 120/4, 593/56, pp.85-86.

⁹³ WA, 16 June 1956, p.1.

⁹⁴ Letter, Snow to Red Cross Society, BL, ACC 1003, AN 120/4, 593/56, p.53. Snow requested that two volunteers be available to assist on each mobile clinic.

⁹⁵ Memo, 20/3/56 Director of Education to CPH; Letter to all teachers 19/3/56, BL, ACC 1003, AN 120/4, 593/56, p.50 and pp.44-45.

Aboriginal children, to authorise their vaccination.⁹⁶ The CNA sought advice from the Solicitor General and then gave “blanket” approval for immunisation to take place provided strict conditions were observed. In a letter to all field staff, officers in charge of institutions and mission superintendents the CNA requested -

- a) that the injections be given by or under the supervision of a duly qualified medical practitioner;
- b) that the practitioner satisfies himself beforehand that each child who is to receive injections is sufficiently fit to receive them in the manner in which they are to be given;
- c) that the practitioner is informed of any known sickness from which the child is or appears to be suffering immediately prior to the giving of injections; and
- d) that any directions of the practitioner as to the care of the child before or after receiving the injection are observed.⁹⁷

He particularly requested that conditions c) and d) be strictly adhered to, in order to minimise the risk of a claim of damages “in the event of death or disablement resulting from the injections”.⁹⁸ While this request may have been routine, an extra level of

⁹⁶ Letter, BL, ACC 1003, AN 120/4, 660/56, p.21.

⁹⁷ Letter, BL, ACC 1003, AN 120/4, 660/56, p.21.

⁹⁸ Letter, BL, ACC 1003, AN 120/4, 660/56, p.21.

protectiveness is evident here, suggesting a concern over Aboriginal people's vulnerability to the vaccine, despite the much touted safety of Australian Salk.

The north west, designated a special region, was home to the largest proportion of Aboriginal children in the state and some controversy arose concerning their immunisation. The District Medical Officer for Derby, Dr L. J. Holman, wrote to the Commissioner to suggest that the department deliver Salk vaccine to remote areas by aeroplane, and asked whether or not Aboriginal children were to be included in the immunisation programme. Holman was apprehensive and wrote -

I understand that the vaccine is an attenuated virus, and the community here has no contact with Polio, and therefore no indigent immunity, and could possibly develop polio from the vaccine. 99

The Commissioner replied that the vaccine was not attenuated, but a killed virus, and was therefore regarded as quite safe, that all Aboriginal children under 15 should be immunised, and he agreed

⁹⁹ Letter, BL, ACC 1003, AN 120/4, 660/56, p.12 .

to investigate the chartering an aeroplane as suggested.¹⁰⁰ The fear of an outbreak of polio amongst Aboriginal children was something which both Commissioners had to consider. The CPH wrote -

Although paralytic poliomyelitis is rare among natives, cases do occur, and with their improving standard of living incidents may be anticipated.¹⁰¹

At the commencement of the immunisation campaign the Commissioner was reported as saying that provision had been made for Aboriginal children to receive Salk on an equal basis with non-Aboriginal children,¹⁰² but a few months later an allegation was passed on to the Public Health Department, before it was made public, that during immunisation conducted at Fitzroy Crossing Aboriginal children from the United Aborigines Mission and pregnant Aboriginal women had been overlooked.¹⁰³

¹⁰⁰ Letter, BL, ACC 1003, AN 120/4, 660/56, p.10.

¹⁰¹ Letter, BL, ACC 1003, AN 120/4, 660/56, p.20. This reflects the argument that the polio virus was endemic in 'primitive' communities and epidemic in 'civilised' communities.

¹⁰² DN, 29 June 1956, p.2. In the late 1960s, when Sabin oral vaccine became available, nurse Robin Miller, who became known as the "Sugarbird lady", delivered it to remote communities by means of an aircraft. See Robin Miller (1971), *Flying Nurse*, Rigby, Perth, Chapter 9, pp.49-54; Letters, BL, ACC 1736, AN 120/22, 783/61, pp.250,254,256-7.

¹⁰³ Letter, BL, ACC 1003, AN 120/4, 660/56, unnumbered page.

Snow telegraphed Holman, who explained that while he was still calculating the number of vaccinations required for his region, he had received a supply of 300 doses, 150 short of his requirements. In order to cover the situation, while he awaited further supplies, he chose to temporarily exclude from immunisation those Aboriginal children and pregnant mothers who did not have Citizenship Rights. Holman claimed that he explained his predicament, and his rationale for dealing with it, in a letter to Snow, and had received a telegram which said "arrangements for polio immunisation satisfactory".¹⁰⁴ Snow made a lengthy reply to Holman in which he denied there was any correspondence with his office which explained or approved the administration of vaccine to Aboriginal people on the basis of citizenship rights.¹⁰⁵ The matter was soon sorted, and no negative publicity against the Public Health Department surfaced.

A steady rate of immunisation had to be maintained to avoid the risk of deterioration in the monthly supply of vaccine. During term breaks, when vaccination of school aged children ceased,

¹⁰⁴ Letter, BL, ACC 1003, AN 120/4, 660/56, unnumbered page.

¹⁰⁵ Letter, BL, ACC 1003, AN 120/4, 660/56, unnumbered page.

extra efforts were made to immunise pre-school aged children through the stationary clinics. For example, an offer to double the quantity of vaccine available to the Albany Kindergarten Association during December and January was accepted.¹⁰⁶ The choice of Albany was a politically astute decision. Polio was a summer disease and families from the surrounding region flocked to the coastal town for their holidays. The availability of extra vaccine would have assisted those who had missed injections at home, and possibly added to the sense of security felt during the vacation.

Not so astute was a decision to defer the immunisation of children in the riverside suburbs of South Perth/Como in preference for those in coastal suburbs of Rockingham/Safety Bay. A swift reaction followed. The sitting federal and state members of parliament, Richard Cleaver MHR and W. Grayden MLA, raised the matter in their respective houses.¹⁰⁷ A deputation of angry citizens waited on the Minister for Health to object to the decision,

¹⁰⁶ Letter, 23 November 1956, BL, ACC 1003, AN 120/4, 593/56, unnumbered page.

¹⁰⁷ Press clippings, 16 and 23 October 1956, BL, ACC 1003, AN 120/4, 1242/55, p.160.

and the South Perth Council wrote to the Minister.¹⁰⁸

Grayden entered the fray several times and drew on every angle possible to make his case.¹⁰⁹ South Perth and Como were also suburbs where many went to swim, in the river not the sea, which, he argued, made them more worthy of protection than the seaside suburbs. The citizens, and the river beach traders who had suffered during past summers, did not intend to miss out once more. The Minister was reminded that the Como school had earlier given its full co-operation in connection with a series of serological tests conducted by Snow.¹¹⁰ Within a short time, in reply to the final question from Mr Grayden, the Minister replied that -

Sufficient additional vaccine has now been promised which will enable the entire South Perth zone to be dealt with before Christmas, as originally planned.¹¹¹

Without loss to the coastal suburbs in question, during the

¹⁰⁸ Letter, 9 October 1956, BL, ACC 1003, AN 120/4, 1242/55, pp.164 and 24 October 1956, p.159.

¹⁰⁹ WA Parliamentary Debates, *Hansard*, (1956). Vol 1, p.1178, Vol 2, 1956, pp. 1254-55, and p.1567, BL, 328.9412. WES.

¹¹⁰ Record of Deputation, BL, ACC 1003, AN 120/4, 1242/55, p. 164.

¹¹¹ *Hansard*, (1956). Vol 2, p.1567, BL, 328.9412. WES; Letter, and Press statement, BL, ACC 1003, AN 120/4, 1242/55, p.173, and p.187.

summer of 1956/57 parents of children living near the river were spared the drudgery of having to find ways of amusing their offspring due to the loss of access to their main form of recreation. And the River Beach Shop Proprietors' Association capitalised on the advent of Salk vaccine to ensure they would have an opportunity to make good the losses they had sustained in past years.

Other forms of resistance to, or questioning of, the plans for the immunisation campaign also met with a strong response from the Public Health Department. The municipality of Midland Junction, where the Department expected a lower rate of acceptance, provides a case in point. The Mayor, W.S. Doney, JP announced a public meeting at the Town Hall for 15 May 1956 at which Snow was scheduled to speak on the topic of "Salk Vaccine Immunisation".¹¹² In the three weeks prior to the lecture, and the week following, articles on the history of polio and the development of the Salk vaccine were published in the local paper, the *Swan Express*, ending with a challenge thrown out to parents,

¹¹² *The Swan Express*, 25 April 1956, p.1.

“...its up to you .”¹¹³ The strategy was seen to have been successful.

An acceptance rate of 93% was reported at Midland Junction high school, lower than the final state average of 97%, but higher “than had been expected”.¹¹⁴

The publicity in the *Swan Express*, connected with Snow’s public lecture at the Midland Junction town hall, differs from the series of articles that appeared in the *Daily News* in that it emphasised the safety of Salk but neglected any reference to the “Cutter” incident.¹¹⁵ A better strategy may have been to have followed the example of the *Daily News*, because evidence suggests that some residents of Midland were worried and were advocating that parents refuse immunisation and resort to alternative forms of protection.

In a speech at the Midland town hall Snow vigorously attacked those who opposed the use of Salk. In an intemperate outburst he advocated such people “should be gaoled”,¹¹⁶ and heaped ridicule

¹¹³ SE, 2 May, 1956, p.1; 9 May 1956, p.1; 16 May 1956, p.1, and 23 May, 1956, p.1. Original emphasis.

¹¹⁴ WA, 3 July 1956, p.2. Vaccination continues to be a controversial topic...

¹¹⁵ SE, “How Good is Salk Vaccine?” 16 May 1956, p.1.

¹¹⁶ WA, 17 May 1956, p.6.

on a “subversive organisation” which opposed the use of the vaccine and advocated that polio could be prevented through avoiding carbohydrates, eating carrots and washing out the bowels twice daily.¹¹⁷ Snow was forced to admit what had not been included in his pre-lecture publicity, that more than 200 American children had indeed become infected through receiving the unsafe Cutter vaccine. However he stated in defense that, since then, 20,000,000 people had been “successfully inoculated with Salk vaccine”.¹¹⁸ Midland Junction was the place where Snow focussed his attentions on resistance to immunisation but, as the rates of acceptance became known, he could count his talk there amongst his successes.¹¹⁹

Criticism suffered by the Public Health Department in 1948 and 1954 had left its mark. During the 1956 publicity campaign care was taken to leave no opportunity for its policies to be publicly undermined. The department received prior advice of criticism about to appear in the press and those who raised their voices to dissent from the immunisation policy were confronted forthrightly.

¹¹⁷ WA, 17 May 1956, p.6; Snow, D.J.R. (1981). *Progress*, p.75. Weird and wonderful ideas continued to have currency even at this stage.

¹¹⁸ WA, 17 May 1956, p.6.

¹¹⁹ WA, 3 July 1956, p.2.

A combination of improved management and tighter control of public relations meant that, in proportion to earlier epidemics, 1956 appeared to be almost trouble free and the voice of critics was muted.

The effectiveness of the immunisation campaign can be partly gauged by the fact that the two cases of paralytic polio that occurred in the six months following the commencement of immunisation were in people who had not been immunised with Salk vaccine.¹²⁰ Between 1957 and 1966 the annual incidence declined from eight to nil, and did not surge upwards in 1961-62 as in other several states. Once the vaccination of children was complete, those over fifteen years of age, and the adult population were immunised.¹²¹ In 1966 Sabin vaccine was introduced, and eventually both it and Salk were made available to General Practitioners.¹²² The availability of Sabin greatly facilitated the continued immunisation of the scattered population of Western Australia, which suffered no more from the feared outbreaks of

¹²⁰ *Public Health 1956*, (1958). Appendix VII, p.58.

¹²¹ BL, ACC 1003, AN 120/4, 951/57, pp.4-119.

¹²² Letter, Director General of Health to CPH, 30 July 1968, and reply, Snow to Director General of Health, BL, ACC 1003, AN 120/4, 1449/60, pp.71-72.

polio. While Sabin must be credited with keeping polio under control, it was Salk vaccine that broke the cycle of epidemics that had so troubled the people and the health and medical experts in Western Australia, particularly between 1948 and 1956. The virus ceased to be a force to contend with, and the community relaxed and forgot about polio, except for those who had been affected by it. They continued to live with the consequences, and two or three decades later found themselves unexpectedly required to revisit their original experience of polio, as Post Polio Syndrome began to make its presence felt.

CHAPTER 9: Memories of polio**“Patients loom small in medical history”.¹**

Polio survivors' memories of life at the hands of the virus during the 1940s and 1950s may have remained out of sight but for the impact of Post Polio Syndrome. After the immunisation campaign removed the threat it posed, a silence fell around anything to do with polio. Since that time the official version of the story has been the one that has had currency. Polio is a subject that, outside a few biographical accounts, was only mentioned in connection with other subjects, such as the 1954 Royal tour, the history of the Commonwealth Serum Laboratories, or the life of leaders in the medical field such as Dame Jean Macnamara. Polio survivors helped maintain the silence. In their quest to rehabilitate themselves and live a normal life most concentrated on “mainstreaming” themselves, and were interested in leaving their painful memories behind. Their experiences have remained an inside story that has never been fully explored or investigated because it was rarely articulated. But memories of the polio years have unexpectedly and painfully been brought back into focus with the result that old issues long buried have had to be addressed, and a counter story is now emerging to challenge the official history.² The memory of the polio years is now supplemented by knowledge of life since then, presenting a wealth of new material to

¹ Smith, F.B. (1979). *The People's Health 1830-1910*, Canberra: Australian National University Press, p.9.

² Bearup, C. (1991). *The outcomes of the Poliomyelitis Epidemics in South Australia: 1912-1960*, unpublished Honours Thesis, Flinders University, p.18.

consider in relation to that period of our history. The 1950s have been regarded as a forgotten period in Australian history,³ and within that time frame the history of polio has remained deeply buried.

A sample of two families and ten survivors were interviewed for this section of the thesis. Interviews were based on a set of questions formulated according to qualitative research principles as described by Denzin, and Lincoln.⁴ An outline of the questions can be found in the Appendix. The questions were aimed to explore the subject's memories of their polio experience, what they felt it did to their sense of self, and what type of reaction they were able to judge it brought out in those around them. All interviews were recorded on tape, transcribed and checked with the subjects. Release forms were obtained in every case and confidentiality has been maintained according to the ethical requirements of Edith Cowan University. Interviewees were offered psychological support if the process of remembering became painful. Only one subject reported a follow-on reaction to being interviewed. Interviewees were also asked how they were affected by the coming of PPS, and how they have been able to make sense of their experiences.

The age at which this sample of survivors encountered polio ranged from four to twenty eight years of age. One of the families had a son who had polio at fourteen months while the boy in the other

³ Murphy, J. and Smart, J. (eds.) (1997). "The Forgotten Fifties" *Australian Historical Studies*, Number 109: Melbourne.

⁴ Denzin, N.K. and Lincoln, Y.S. (eds.) (1994). *Handbook of Qualitative Research*, London: Sage Publications. Chapter 22 "Interviewing".

family had polio at eleven years.⁵ Periods of hospitalisation varied from nil, through a few months to several years, and in one case was much longer. Three record being placed in a tank respirator, or “iron lung”, to recover lost respiratory capabilities. While the participants had vastly different experiences, some very strong common threads emerge from this material. This chapter explores key themes that emerged from the interviews, and draws heavily on the testimonies given. The addition of emphasis in quotations used is indicated in the footnotes and occasionally, for the sake of clarity in particular quotes, original emphasis is also indicated.

Memories gathered forty or fifty years after the event naturally include the individual’s reflections on their experience in the light of what has happened in their life since. The interpretation offered is the one they now choose to place on the past, rather than a factual account of the event. The questions posed by the interviewer form another part of the complex weave of influences that determine the way testimony is given and what is gathered from it. The process of editing and shaping the testimony for use as evidence affects the source, but hopefully does not violate its integrity, any more than is possible using written materials. The length of quotations used in this chapter is justified on the basis that the aim has been to preserve, as much as possible, the full voice of the polio survivors interviewed. Through these testimonies another side of the polio story has emerged to present a counter narrative to the type of official history that has so often claimed the main ground. F.B Smith has written-

⁵ Interviews A and G. I myself had polio at two and a half years of age.

...medical history is the history of social relations, with the patient as client, mostly but not always passive, and the medical practitioner as only another of the forces, albeit in many transactions the crucial one, shaping the well-being and ill-being of men and women during their seven ages.

Within this complex set of relationships the historian is another active force in the transaction that has led to the writing of this history in which the experience of ordinary patients has not loomed large, and the perspectives of the medical experts has often dominated. Hopefully, from this interaction, a new polio history may begin to emerge which is less clinical, more democratic, and a richer reflection of life as it has been lived by polio survivors.

Ignorance and misdiagnosis

The impression gained from examining the records of the Public Health Department, and newspaper reports, is that information about polio was disseminated widely. But a surprisingly high level of ignorance about polio seems to have persisted amongst members of the public and the medical profession alike. Survivors testify that they were not given accurate information concerning their illness, and in some cases were not told anything at all.⁶ Despite the publicity, some subjects only became informed about polio after they were affected by it,⁷ and it is evident that even amongst the medical profession uncertainty about polio continued right up

⁶ Interview D, p.35; J, p.84.

⁷ Interview I, p.76.

to the commencement of immunisation.⁸ Several subjects testify to receiving strong medical support,⁹ but in other cases “the standard of treatment was abysmal”.¹⁰ The uncertainties evident in the history of polio are reflected in the accounts given by those interviewed. By the mid 1950s the most commonly understood precaution was that of adequate hand hygiene,¹¹ but fear, superstition and ignorance remained.¹² While some regard the symptoms of polio as unreliable, one would expect to find that during the 1950s anyone who presented with a febrile illness would be tested for the disease, but it was not so. Medical professionals often disregarded or overlooked the presence these symptoms and implemented treatment for some other complaint. An unexpected result from these interviews has been the discovery that 50% - six cases - were at first misdiagnosed.¹³ One survivor, who was himself a doctor, recounts -

I think there were many erroneous diagnoses. There's no test for poliomyelitis as we know tests for various illnesses today... Lumbar puncture was done, but there was no specific test. The virus took too long to grow and be

⁸ For example, Interview K. Two subjects (A, p.6, and F,) report receiving strong medical support, and it is clearly evident in the case of others,

⁹ Interviews A, p.6; F; B, p.17.

¹⁰ Interview B, p.17.

¹¹ Interview F. p.54.

¹² Brogan, A.H. (1990). *Committed to Saving Lives*, p.113. Brogan remembers that during the 1930s he was sent to the country to escaped the epidemic. When he returned home to Bendigo his father had enclosed the verandah where he slept with fly wire, so he could have the benefit of fresh air without the contamination of flies. And he kept germs at bay by wearing camphor in a small bag attached to his singlet.

¹³ Interviews B, C, G, H, K, and L. In addition to these, the daughter of Interview H, (p.70) was admitted to hospital with breathing difficulties, “stiff neck and high fever”, not diagnosed as polio, and was operated on for removal of adenoids to clear her breathing. Her polio was revealed in adult life when she unexpectedly presented with PPS. In retrospect the symptoms seem clear but her records make no mention of polio. This case is not included in the count from this sample, nor is my own, if they were the result would be eight misdiagnoses out of fourteen, or 57%.

identified. But **mind you the diagnosis was not, in general, exceedingly difficult to make providing one understood the characteristic features, and did some simple tests.**¹⁴

It is not possible to argue that misdiagnosis was due to these six cases having occurred at an early stage of polio research. Apart from one case, which occurred in Western Australia in 1946 - prior to the first major epidemic of polio - the remainder were infected when polio was relatively well understood and accurate diagnosis could reasonably be expected. Of the five remaining, one had polio in 1953, three in 1954, and one in 1956. Of these only one - from 1954 - was not a West Australian. Two believe they actually caught polio in hospital.¹⁵

Misdiagnosis resulted in a variety of responses ranging from the performance of a laminectomy, to relieve "cord compression",¹⁶ to insisting the patient walk, which exacerbated his paralysis,¹⁷ to the removal of adenoids.¹⁸ The survivor quoted above recounted -

...if I hadn't had medical knowledge there's no chance I would have survived. ...I had to give instruction to my medical attendants. Even so, I couldn't stop them doing some of the harmful things that they insisted on doing, because I didn't know about them until after the event.¹⁹

Exposure to polio presented difficulties for those on both sides of the hospital bed. Patients with early symptoms of polio

¹⁴ Interview B, p.18. Emphasis added.

¹⁵ Interviews B, and G.

¹⁶ Interview B.

¹⁷ Interview G, p.58.

¹⁸ Interview C.

¹⁹ Interview B, pp.23-4.

encountered the disbelief of doctors and medical staff, as they have in recent times when presenting with PPS. One doctor, an old school friend of the patient, was said to have, "...reckoned I was putting on a bit of an act".²⁰ Another survivor presented herself at hospital late at night with "high fever and severe back pain" was prescribed APC and morphia, and instructed to "come back tomorrow if the pain hasn't gone".²¹ The pain did not abate and the next day she returned. Although muscle loss had begun to occur x-rays were taken but revealed nothing. The x-ray technician said "You look as if you've got infantile paralysis to me, but its none of my business".²² The doctor in charge visited for the first and final time ten days later and said "she can go home". The patient replied "Doctor, please, I have two little babies at home, I can't walk. Please look at my leg". Before he walked off the professional replied - "Grow up! And if you won't, get yourself some crutches".²³ The majority of survivors in this sample did not record experiencing such appalling and abusive treatment. Some doctors were alert to the symptoms of polio, or their colleagues were, and responded immediately with appropriate measures.²⁴

Hospitalisation and its effects

Of the many stories of the ravages wrought by polio those involving

²⁰ Interview K.

²¹ Interview H, p.64.

²² Interview H, p.71.

²³ Interview H, p.64.

²⁴ Interviews A, p.1; F, p.49, and K, p.91.

psychological injury caused in early childhood are the most difficult to uncover. While psychological injury is evident amongst this sample, only one interviewee indicated receiving any form of psychological support at the time, or since.²⁵ The evidence suggests that the health system was in general not attuned to the psychological and social effects of polio and hospitalisation. There is a silence around this field of enquiry amongst medical and health professionals, and polio survivors themselves. Attending to the immediate physical and technical needs of the patients may have been easier, and seemed more useful, than confronting the more nebulous psychological and social impact of polio on their lives. Extended periods in hospital isolated from family and friends during the formative years has left deficits²⁶ which have affected relationships, adding to the restriction physical limitations sometimes placed on social life.²⁷

The effect of child care and nursing practices in place prior to the 1950s contributed to the psychological wounding of polio survivors, as it did to any very young children who were isolated from their families for lengthy periods. Early in the twentieth century child-care policies were based on a belief that “firm, cold detachment” was the best approach, while the expert opinions of those such as the New Zealander, Truby King, and J.B. Watson combined to produce what we would now regard as an inhuman

²⁵ Interview A, p.6.

²⁶ Interview A, p.4; My own experience of being hospitalised and isolated from the family for seven months at the age of two and a half years is also relevant here, as is the experience of the “Stolen Generation” and the “orphans of the Empire” children, to name two other examples..

²⁷ Being unable to dance, run and participate in sport is frequently recorded as a consequence of polio. This is discussed in more detail below.

environment for the nurture of children. J.B Watson advised regarding child care:

Never hug or kiss them. Never let them sit on your lap. If you must, kiss them once on the forehead when they say good night. Shake hands with them in the morning. Give them a pat on the head if they have made an extremely good job of a difficult task. Try it out. In a week's time you will find how easy it is to be perfectly objective with your child and at the same time kindly. You will be ashamed of the mawkish, sentimental way you have been handling it.²⁸

Fred Davis, who from 1954-55 followed the history of fourteen American polio survivors and their families, comments that exposure to hospital life loosened familial ties and introduced changes that made it difficult for a child to reintegrate with home life.²⁹ He found hospital routine was deadening for children, and interactions with professionals inhumane and alienating, though this is true for more than just polio survivors. Humphries and Gordon report that, in British institutions for the disabled, often no pity was shown to the child who cried.³⁰ Evidence of punishment or other penalisation of children with polio is scarce, but it is known that hospital staff recorded whether their charges were "crying" or happy.³¹ A phobia of "spoiling" children left

²⁸ Darbyshire, P. (1994). *Living with a Sick Child in Hospital; the experiences of parents and nurses*, London: Chapman and Hall, Quoted in Hardyment, (1983). p.175. While some changes to this approach can be found as early as 1927, real reform came much later in the late 1950s and 1960s.

²⁹ Davis, F. (1963). *Passage Through Crisis: polio victims and their families*, Bobbs Merrill Co. Inc, New York, pp.120-123, p.171.

³⁰ Humphries, S. and Gordon, P. (1992). *Out Of Sight*, p.91. They also report that sensory deprivation was common in institutions that housed blind and deaf children, and that it even extended to a ban on using sign language, leaving them totally alienated.

³¹ Princess Margaret Hospital, "Examination Sheet for John Smith, Ward 2", January 1949, General Appearance "Crying boy of 2 1/2, walking with stamping gait". "Examination Sheet, for John Smith, Ward 2", 13 July 1949, "Temperature 102.2, Child flushed but happy". "Examination sheet for John Smith, Ward 9", May 1950, "Crying boy of 4". Copies in the possession of the author.

distress uncomforted by hospital staff and parents alike.³²

Mary Westbrook's survey of the clinical literature reveals that, especially when it came to dealing with children, Australia medical professionals are particularly guilty of misjudging the level of psychological distress caused by having polio.³³ She reports that the dominant medical myth was "contracting polio is not very upsetting for children; they soon get over any distress unless they are spoilt".³⁴ Many polio survivors report that it was taboo for them to be "spoilt" or "mollycoddled" - even by their parents. An interviewee reports her mother thought being "mollycoddled... had led to the illness in fact".³⁵ Parents and nursing and medical staff alike showed an aversion to normal expressions of tenderness and concern. Coupled with this was the dominance of the heroic or triumphant model for surviving distressing experiences which encouraged survivors to live as if they had no disability to contend with.

Impetus for reform of child care policies came following the work of John Bowlby and James Robertson who studied the effects of maternal and familial deprivation, in connection with the war time evacuation of children. They also filmed the effects of hospitalisation on children and revealed the startling outcome to a

³² Interview C, p.28; E, p.46; I, p.81.

³³ Westbrook, M. (1996). *Early Memories*, p.5, see also Bearup, C. (1991). *Outcomes*, p.56, "By today's standards... little attention was paid to the psychosocial needs of the polio patient..."

³⁴ Westbrook, M. (1996). *Early Memories*, p.5.

³⁵ Interview C, p.28. My own experience was that, after long periods of hospitalisation I would return home. The tantrums that attended my reintroduction to family life were explained by the comment - "the nurses must have spoilt him".

disbelieving medical profession.³⁶ The work of Bowlby and Robertson had its impact too late for many children hospitalised during the polio epidemics but it has contributed to a radical reshaping of the child care offered since.

Jane S. Smith has written “a buried fear is hard to resurrect”³⁷ and among this sample there is evidence that memories of early experiences of hospitalisation are difficult to uncover. Factors may have influenced the silence include the severity of the experience, the age at which it took place, and the relationship of the survivor to the person reporting the effects. A nurse, who in 1969 married a polio survivor who had been infected at eleven years of age, reports that her husband, now deceased, was quite reticent about his past even though his early experience of hospitalisation had proved almost fatal -

...trying to get any information about what happened when he actually had polio, or even his life before he had polio, was very difficult... I was trying to write something down for the children so that they would... know how Dad managed, but it was extremely difficult to get anything out of him, particularly about the time that he was at the "Golden Age",³⁸ which, thinking back now, and having talked to a lot of other polio people, probably means that he didn't have a very good time there at all...

... one of the only things that he ever did talk about, was when he was left in the bath [in] only a couple of inches of water. At that time he was completely paralysed, so he could just lift his head up. He was lying on his tummy - the nurse

³⁶ Bowlby, J. (1953: 1990). *Child Care And The Growth of Love*, Penguin, Harmondsworth, especially pp.21-52. Robertson, (1962:1970). made two films, *John: Nine Days in a Residential Nursery*, and *A Two-Year-Old Goes to Hospital*, and SBS TV Documentary, *Are Mother's Really Necessary?* Episodes 1-4.

³⁷ Smith, J. S. (1990). *Patenting the Sun*, p.24.

³⁸ The “Golden Age”, formerly a hotel, was bought from the Swan Brewery and converted into an annexe to house patients from Princess Margaret Hospital who required polio after-care.

had gone to get a flannel - he couldn't keep his head up any longer and... was drowning in water, and he was aware that he was drowning, and she... came back and grabbed his head out again in time. And he spluttered and coughed and managed to get the water out of his mouth, and his comments have been that he's nearly died so many times that he was not afraid of dying, because he'd faced it so many times right from back then.³⁹

Very young children may have been the worst affected by hospitalisation - whether due to polio in themselves, or the long term removal of a parent affected by polio. And absence from home because of hospitalisation provoked gender issues in some families. In this sample alienation from one parent was sometimes countered by growth of relationship with the other, though no discernible pattern can be found.⁴⁰ But some recognise there was an impact arising from the separation. The parents of the youngest polio survivor in this sample report that after their fourteen month old son had been totally separated from them for a month, "he didn't know who we were - it was terrible",⁴¹ and that "the psychological effect...[of polio on her son] was much worse than the physical effect".⁴² The mother reports that she felt their son was twelve years old before he "really... accepted me as his

³⁹ Interview G, p.60.

⁴⁰ Interview B, pp.22-23, a male, developed stronger mother attachment; C, p.30, a female, developed negative mother relationship but the father remained positive; d, p.36, retained positive relationships with both parents; E, p.46, had a positive mother relationship, but her siblings were resentful; F, p.51, "couldn't have wished for better parents; I, pp.77-78, records that on return home, things continued as normal. In my own case my father was the primary carer, and if I experienced any depletion of the mother-bond, it was compensated for by a development of my paternal bond.

⁴¹ Interview A, p.2.

⁴² Interview A, p.14.

true mother".⁴³ Relationships with other members of the family were also affected, but one month's absence at such a young age was sufficient to severely disrupt the maternal bond, at least in the mother's eyes. Such disruption was exacerbated by the hospital visiting policies in place at the time. The parents testify -

[Mother] We were allowed in those days to see him twice a week, Wednesday between five and six [pm], and Sunday between three and four [pm]. That's **all** the time we were allowed to see him and because he was taken away from us for a month, we would go in and he didn't know who we were. But by the time we were about to leave he was beginning to recognise us and then we'd have to go, and he'd scream, and all the children would scream.

[Father] I think that was the worst part of the whole system because... he was living away when he was at the age where he was beginning to be part of a family, and understand that we were his parents and things like that. He didn't and I think that was a lot of the psychological problem that he had the rest of his life. It's only really... in the last ten years, that he's really in a sense, knows that he's part of the family. I mean he's always known, well, we've told him and he knows, but the actual acceptance of it like a normal family would be.⁴⁴

[Mother] ...we have some terrible memories... things he would do spontaneously... right up to in his twenties. He'd come home for ...the holidays... and I'd be so worried about him driving this long distance across Australia on his own... I'd hear the car come up the driveway and I'd go to the door, like I would greet anybody - more so a family member - and I'd say [hello] and I'd go to kiss him. He'd turn his face right away - as though... stabbing me in the back... Those were things I found very hard to handle. I couldn't understand why he would do that to me.⁴⁵

The official versions of polio history in Western Australia pay no attention to these dimensions of the story, concentrating instead

⁴³ Interview A, p.4. Original emphasis.

⁴⁴ Interview A, p.4. Original emphasis.

⁴⁵ Interview A, p.14.

on the medical victory, fear and the “conquest” of the virus, and the heroic triumph of selected survivors. Nor is there any evidence of psychological support being provided in the system of care and after-care. But the losses suffered by polio survivors and their families went far beyond those imposed by physical disablement and separation from home.

Not all experiences of hospitalisation were negative. For those children old enough to be less vulnerable to the effects of familial loss, and whose level of mobility allowed them a degree of independence, periods of hospitalisation could be relatively happy times. There was a great deal of camaraderie and life-long friendships were sometimes formed with patients and staff.⁴⁶

After three years away in hospital, commencing at eleven years of age, a young woman returned home to find her friends had grown up. She made various personal gains during her absence, but her story reveals six levels of loss. Separation from family due to hospitalisation; the loss experienced when others were sent home; separation from the friends she had made during three years in hospital; the feeling of alienation from friends and family on her return home; loss of the ability to dance, and the perception that having a normal married and family life would be unreasonable. She recalls -

I was an only child and we lived on a farm, way out. I only saw my Dad when I was able to go home for that week at Christmas time, and Mum used to try to come up and visit

⁴⁶ Interviews I, J, and K record this. See also “Friendship heals polio scars”, *Busselton-Margaret River Times*, April 1997.

me once during the year, so I... saw her twice a year.

...I'd never been away from home before... the doctor had said to me "Oh, you'll probably be home for your birthday", but he didn't say it was going to be birthday three years along the road. [I] went up to Princess Margaret... and didn't really know what was wrong with me until a lot of the kids came along and said "Oh, look this is my polio arm, and this is my polio leg, and which one is yours?" It suddenly struck me what was wrong with me...

Then, after Princess Margaret, [where] we had a teacher and used to do our schoolwork ...[I] went to the Golden Age, which was the annex of Princess Margaret ...the older girls.. could... walk around... and help change the babies and... feed the little ones. It was just like one big happy family. We had our own classroom. I was quite happy there. Probably its not a very good thing to say, but you know if you have to be somewhere, it was a good place to be.

...[once] back home... you had to adjust from losing your big... happy family... and finding that all the kids... I'd had [as] friends before I went had all grown up... They'd gone out to work and ...all had their own group of friends... You basically have to start all over again.

It was... like getting used to another family again... Quite difficult at fifteen... all the other kids were going to dances... I used to try, but I'd fall over too often and look an idiot, so I gave up.⁴⁷

[In hospital] there was a lot of not-so-happy times, especially when somebody would be getting a lot better, and leaving your friends behind, and you could see that that person was not getting better at all. And you... had a... feeling of guilt... because you... could see that you were getting to a higher level and that other person just was staying put. Especially when they went home... and you knew that they weren't going to get much better. You'd see them going off... not being able to walk or anything, and you'd think "well, probably that's it", because they didn't send people home unless they were sure that they weren't going to get any better.

There was a lot of nice people up there. We were allowed to go out on a Sunday. Because I didn't live... anywhere near... other people would take us home for the Sunday... when they took their children. But a lot of the times weren't very

⁴⁷ Interview J, p.84-85.

happy, ...I think you're inclined to try to sort of forget those.

[When I came home] I don't think it was ever the same as before I went, because it was... so long between visits and with being away for so long, and being with other people, and seeing a whole different lifestyle, to come back to how it was, it didn't work that well. ... you look forward to coming home; you look forward to the happy day when you're going to be there, but when you got there it wasn't what you expected. It really was completely different.

[My parents had] got older and things... weren't the same, and... they were over protective... [They would say]... "Oh no, I don't think you should go and do that" and "No! I don't really think that would be a good idea"... right up until... we were going to get married. Mum didn't think that marriage and family ...was a good lifestyle. She thought that maybe it's not the thing that you should be doing. Not that anybody ever took any notice...⁴⁸

No, it wasn't the homecoming that I'd expected... from my point of view because living away and living in Perth was totally different to coming back here, right away from everything... We were about twenty kilometers out of town, and it wasn't a matter of just being able to go and see your friends when you wanted to. You had to rely on them to be able to take you and they didn't really live that lifestyle.⁴⁹

The loss of childhood, and the disruption of sibling relationships is evident the testimony of a male survivor who spent four years in hospital.

I resented... being in hospital. One of my sisters - the one closest to me in age - had had slight touch of polio... but she didn't have to go to hospital and I objected to the fact that I was the one that was sent to hospital. I objected to the fact that I was missing out on all the wonderful things that happen on a farm. We had a marvellous childhood, but as I said we weren't at all wealthy. My father was a soldier

⁴⁸ Humphries, S. and Gordon, P. (1992). *Out Of Sight*, pp.144-50; There was a strong prejudice against having a relationship with a disabled persons, and relationships between disabled couples were strongly disapproved of, often on the basis of Eugenics.

⁴⁹ Interview J, pp.87-88.

settler from the First World War, and had a small holding - at a town called Dunorlin, which is close to Deloraine - and raised dairy cattle... We had a marvellous childhood until this polio struck, and I always objected that I was the one who was singled out to go to hospital, and I missed out on all the marvellous things that happen to kids when they're ten or eleven years of age, and in the company of big brothers and sisters.⁵⁰

The impairment of physical functioning, leading to curtailment of social opportunities, was frequently remarked upon by those interviewed in this sample. Difficulties were acknowledged with mobility, dancing, sport, horse riding and work.⁵¹ Loss of body image and the prospect of decreased economic and social opportunities obviously lie behind this concern. For the males, loss of work and sporting capacities was a major consideration, along with the social training that came through normal childhood interactions. The male survivor above reports that hospitalisation from polio -

... deprived me of the opportunity to play games and undertake activities with children of my own age... There might have been twenty beds in the hospital ward that I was in. There would only be a few boys of my age; some of them a good deal younger, some of them a good deal older. I never had the chance to play team games, even... sedentary games you can't play very well in hospital. I think I missed out a lot in learning the ethos of the team. That's my biggest loss. I think I never learned to share victory and defeat in team sports, that other boys of my age would have had. I think that was the biggest loss.⁵²

⁵⁰ Interview D, p.37.

⁵¹ Interviews, D, p.37; I, p.79; J, p.85; K, p.93; L, p.100. "Dad played drums for the local hall and Mum relieved on the piano every now and then. If there was a barn dance, or a slow dance I stood up with Mum and had the dance. These days I can't dance, it's too much, but I was young then and I could get around". (Interview I, p.77.)

⁵² Interview D, p.40.

A mother of two who, after polio, had a third child in 1961 and now regularly uses a wheelchair reported, "I... find some things hard. I taught all the kids to ride a horse - that's hard from the ground - and things like that were difficult".⁵³ A farmer, who was initially hospitalised for ten months, was allowed home in a wheelchair to class the wool clip at shearing time. His verdict was that this was "terrific therapy as far as I was concerned" and it formed the basis for his decision to return to to the land despite his disability and the adjustments he had to make as a result.⁵⁴

Parents who were hospitalised with polio and had small children at home suffered from being deprived of their children. Assisted by other members of the family their children may have had the advantage of a better quality of care than those children with polio received in hospital, but relationships were also disrupted, though perhaps not as badly. Keeping the family going required additional help and extra effort on the part of spouses and in-laws. A mother with one young child was -

Six months pregnant when I got [polio] and there was nothing wrong with the baby... she came home, my mother-in-law had her... for twelve months, because she didn't come home immediately I went home. I came home once, I think, during that twelve months... for Christmas...

Until [the baby] was perhaps a year old, we had a girl, a live-in girl that had just finished school. ...we had three girls that stayed three years each, and then... they went off and did their own thing... it worked out well for... all of us.

In connection with the separation from her baby, she said -

...that was a bit hard you know. My husband used to come

⁵³ Interview L, p.100.

⁵⁴ Interview K, p.92.

to Perth every fortnight and stay with friends. And... occasionally he brought... the eldest girl, but he didn't bring the baby up of course. But, you know, I don't think anyone had any lasting effects from it. My mother-in-law used to have... a fair bit to say about whatever affected that particular child. Well she had a right to I suppose... but there was no drama about that.⁵⁵

A mother of two who was hospitalised for three months found that her two children, a boy of twenty months and a girl of three years, were disturbed by her absence. During her three months of hospitalisation her son was also admitted to PMH with polio and her daughter was cared for by her sister who lived in the country. She felt deeply about not being able to see her children.

Most traumatic was... not being able to see my children. You didn't have visitors. My husband [who] was in the Services... nearly got a court martial over trying to cope with [my son] when he was fretting. It was traumatic because I had no family in Perth. My mother was [in Bunbury], my sister was at Wagin, so she took [my daughter] to Wagin. I was a woman that craved to have children and here I am in hospital months on end, and I never saw my babies.

When she was discharged from hospital she found that her son, who was still receiving treatment, did not know her. Then, after enduring the difficulties of making a journey to Wagin to see her daughter, she encountered a similar reaction.

We got off at the station and [me with] that caliper on my leg, ...we got lost, and... by the time we got to my sister's place... I was so tired... she said... "Go and lay down on our bed". They brought me a cup of tea... I was... so exhausted that I fell asleep with [it] in my hand.

... when I did see [my daughter] she didn't know me. Well I broke my heart, to think there's my babies, they don't know me. No-one can understand what that's like when you're

⁵⁵ Interview L, pp.97-98.

separated from your children for so long, unless they've been through that. But you survive.⁵⁶

While separation from her children drove this mother to the brink of doubt and despair her “but you survive” reveals a strong sense of determination to win out over polio. She continues -

I cried day and night. I can remember crying for my children, so many days, so many months. I just sometimes wondered if I'd ever see them again - you long for them. My [daughter] was just at the stage of beginning to talk - and I thought “I'm missing all this and not because I want to”, you do wonder and then you think I'm going to beat it, it's not going to beat me, I'm going to beat this thing.⁵⁷

In later life this mother has also reflected on the other side of this story - the effect of the separation on her children. She said, wistfully -

I have wondered. I have really wondered... I think [my daughter] having nothing the matter with her, ...always mothered [my son] but I often wonder if she felt he got all the attention, and maybe she missed out. She would deny that possibly... but I have wondered.⁵⁸

Separation from family and friends was affected by rules about hospital visitation. During the early stages of infection quarantine restrictions often applied, but even where this was not so, parents frequently had little time with their children, as noted above. A male survivor hospitalised in Tasmania at nine and a half years of age recalls that for the first two weeks he had no visitors because -

⁵⁶ Interview H, p.66.

⁵⁷ Interview H, pp.70-71.

⁵⁸ Interview H, p.70.

I was in the Infectious Ward in the old Launceston Infection Diseases Hospital, but after that I was able to. My parents lived some distance away - they were farmers - we certainly weren't wealthy people by any means. My parents were able to make the trip into Launceston - this was forty miles - to begin with they used to come and see me every weekend, but after a while they gave up quite such regular visits, because I did have a sister, and later on two sisters, and one brother, who were attending high school in Launceston, and they had to board, and though they did go home by train some of the weekends, some weekends they spent in Launceston and they would visit me. So the system worked out, roughly speaking, my parents came once a fortnight and the the odd fortnight, either my brother or one of my sisters would come to see me.⁵⁹

Added to this form of isolation was the regime that existed in the hospital in 1937/38.

... my first recollection is of a system that didn't really believe in explaining to the patient what was going on. The patient wasn't expected to know, or to be able to take in. They treated us as children - of course we were children - but they talked down to us...⁶⁰

Those who were transferred to the city from country districts were sometimes little worse off than those whose families lived in the metropolitan area. A Perth woman who had polio at four years of age recalls -

I know my family visited, but I don't know if anyone else did. I don't know how regular my family were. I know we didn't have a car in those days, so they would have had to depend on public transport.⁶¹

⁵⁹ Interview D, p.35.

⁶⁰ Interview D, p.35.

⁶¹ Interview E, p.45.

Polio and hospitalisation brought many deficits, but some gained advantages from the experience which proved to be a crossroads at which they made fundamental decisions about their future directions in life. The Tasmanian, who in adult life became a high ranking librarian, continues -

Scholastically it didn't worry me, because I did reasonably well. One of my first gifts that my parents and brothers and sisters gave me was a set of books called *Practical Knowledge For All*, which I can still see on the shelf right across in this very room, and I became an avid reader. In St Giles Home... they had a small library there and I took charge of it and used to arrange the books properly. I used to get somewhat annoyed, because I used to arrange them alphabetically by the name of the author and someone would come along and arrange them by the colour, or the size of the binding.

I got terribly interested in scholastic things, reading and so on, and I think I benefited from that... I was interested in history and so on, because of the reading I did in those days, so I never regretted it from that point of view.⁶²

And the doctor, who in 1953 spent seventy four days in an iron lung, turned his attentions to respiratory research. A distinguished career followed over the next thirty years, marked in 1989 by his being awarded the inaugural "Fisons" medal of the Thoracic Society of Australia and New Zealand. Three years later

⁶² Interview D, pp.40-41.

was made a Member of the Order of Australia.⁶³ His career, which included working with Julius Comroe at the Cardiovascular Research Institute, San Francisco, grew directly out of his response to having polio -

I left Perth in 1957 to take up research at Sydney University. I was partly inspired by reading books such as that of Julius Comroe *The Lung*, which was a mine of useful information. And there were other works, other publications, that I found extremely helpful in managing people with respiratory paralysis during the '56 epidemic... These works led me to the idea that the best thing for me to do - considering that I was fairly severely paralysed, and would be permanently paralysed and have to walk with crutches - was medical research... I gained an appointment at Sydney University, working on pulmonary function [and] was there for three years... The problem was what to do then and it seemed to me the best thing to do was to gain further knowledge of research through working at one of the major centres in the United States. In my case it was the Cardiovascular Research Institute, whose director was Julius Comroe - the same Julius whose book on the lung I'd read in 1956. At the time, in 1956, I remember idly remarking that it would be nice one day to work in Comroe's Institute, and in 1961 I found myself there.⁶⁴

Not everyone was able to turn their polio experience to such advantage but some did, as is evident from these testimonies. One result of their decisions, and their determination not to let polio beat them, is a notably high level of achievement amongst polio survivors.

Fear and stigmatisation

⁶³ *Thoracic Society News*, November 1992, p.63. An A.M was awarded in 1992.

⁶⁴ Interview B, pp.21-22.

Vivienne Overheu, a polio survivor of the 1954 epidemic, records that she and her family were stigmatised because of the polio she had when twenty-two years of age. While she was still in hospital in Perth, friends and acquaintances in her home town “tended to cross the street” rather than come in contact with her parents, and “even the public telephone was disinfected after they had used it”.⁶⁵ Stigmatisation was not confined to country areas. Overheu, who had to use a wheel chair, records that during a visit to Perth with her mother she had great difficulty in finding a hairdresser who would accept the job of cutting her hair.⁶⁶ The sight of her entering the premises was enough to prompt whispered conferences amongst the staff and declarations of full appointment books.

Fear of polio which resulted in the stigmatisation of survivors is recorded by eight interviewees. It is clear from this sample that the age at which the subject had polio affected their likelihood of being stigmatised, and also the the memory of the experience. Fear and stigmatisation is evident among family members, and the public,

⁶⁵ Overheu, V. (1984). *It Pays to be Stubborn*, Perth: St George Books, p.34

⁶⁶ Overheu, V. (1984). *It Pays to be Stubborn*, pp.73-4.

as well as hospital and medical staff, and it was not left behind at the end of the polio era. Parents who indicated that as a result of their son's polio in 1951 their friends "sort of dropped off a bit" reported that in recent years their son, who is able to "dance quite well", was refused by a woman on the grounds that "she wouldn't dance with a cripple". The refusal was deeply felt -

He broke down on the phone... he was really upset. We thought things had come a long way really over the years, but when you hear that, some people haven't come any way at all.⁶⁷

Sadly, stigmatisation was sometimes felt within families. The woman referred to in chapter two, who at school found herself rejected by the members of her basketball team, is a case in point. She recalls how her mother, in particular, felt that polio had brought shame and unwanted attention to the family, with obvious consequences for the sense of guilt and shame she herself accumulated. She said -

... the biggest sin was to draw attention to the family and in some way make us... you know...[other] children didn't get these things, but I did. And, of course, it implies... neglect.. which was I think why my mother accentuated how mollycoddled I had been... It was not her fault, either way. You can't blame her. It was the nurse; it was the hospital, or it was God when I was born.⁶⁸

Interpreting childhood memories is made more difficult because stigmatisation was not always expressed directly. When asked if

⁶⁷ Interview A, p.8.

⁶⁸ Interview C, p.31

he found people treated him differently after he had polio a survivor said -

It would be hard to tell that I think, because... I suppose there was a difference. I don't remember any sort of, any discrimination against me, on the grounds of "that family's unclean because they've had polio". I don't remember anything like that at all. I may have been too young to notice, or may just have been unobservant, but I don't remember anything like that. It is true that very, very few people, apart from my family, came to see me in hospital. We had one old chap who worked on the farm, occasionally hired by my father as a labourer. He was very fond of me and I remember him coming to see me once, but by and large I can remember very, very few people coming in to see me in hospital.

I think there was some suggestion that some of the cousins - my mother had a brother who lived in the same town... he had a largish family... They wouldn't come near our household, about the time of the infection, but I don't think it lasted very long.⁶⁹

A similar lack of direct personal experience of stigmatisation is recounted by an adult survivor. He knew that others had encountered stigmatisation and, with humor, is able to show that it did exist not far from him. He said -

I can't say that I had any... experiences that made me feel that I wasn't welcome in their company... Others have talked about that, but no, I can't say that... The only thing that I heard I think, was that an old gentleman that had been contact with me prior to my going down with polio... he said something like he wished he had known, because he was one of those that if he went out he used to always gargle with something, salt and water, or some old fashioned remedy... He wished he had known, because he would have gone home and done that but he didn't know and he didn't get polio so I don't know what he concluded from that. But, no, I can't honestly say that I encountered anyone whose reaction was... reluctant to be in my company.⁷⁰

⁶⁹ Interview D, p.37.

⁷⁰ Interview K, p.95.

On the other hand the doctor who had polio as an adult stated he did not experience stigmatisation or ostracism. If it was present, he obviously refused to accept it.

I suppose if you look hard enough for it, you'd find it, but that doesn't apply solely to polio. There are some people who don't like dealing with people with disabilities. That's a perfectly general phenomenon. I regard those people as having a curious attitude. Certainly there are such people, but, in general, I either ignored such attitudes or they weren't very apparent in most people I dealt with. But there are some people who don't like dealing with the paralysed. They used to call them cripples. You're not allowed to use the word cripple any more. It's supposed to be one of those forbidden expressions - let's not drift into that.⁷¹

The schoolyard was the most obvious place for children with polio to feel the presence of stigmatisation. Even school children are remembered as basing their attitude towards of polio survivors on fear and the uncertainty that surrounded its cause and means of transmission. One survivor recalls that, as a schoolgirl she was upset by the taunts in the school yard.

I know I used to get teased a lot at school... because I had a caliper on my right leg... get called names and that, get a lot of teasing... "Football boots", "Limpy", "Hopalong Cassidy"... I remember... names like that, yes.

I don't think anyone really knew how you caught it, and [they said]... "don't play with her 'cos you might get it as well" - and all sorts of things like this.

Not all her experiences were negative. Being victimised also brought out the help and protective influence of others, even if its effect was temporary.

..there was this other boy who was younger than me, his

⁷¹ Interview B, p.23.

sister also had calipers, or [was] disabled, and he used to come up and say "Oh, leave her alone..." He knew what it was like, because his sister was similar. And I think the teachers used to tell them to leave me alone, but when the teachers weren't around it all started again.⁷²

A similar experience of protection is recalled by a male interviewee who, as a teenager became involved in a school yard fight..

... after my hospital experience of course I went to... high school like any other child... The very first day I was there, I was thirteen years of age at the time, I was still in hospital - I went to high school from hospital - and I got into a fist fight with a boy... someone rushed up to this boy and said "Cut it out John. Don't hit him, he's in hospital, he's a polio sufferer... So John, whom I still remember quite well, stopped the fight immediately.⁷³

A female interviewee who came from a close knit rural community records no personal stigmatisation, or pity. If it was present it was too understated to register. However, on discharge from hospital she had to surrender her personal possessions for fear of them conveying germs to others.

I don't think anyone felt sorry for me. I just went in with the group of kids that were going. Some of them didn't like me because I was slow in keeping up, but apart from that I was always involved with them... It didn't worry me.⁷⁴

Mum bought me a book when I went into Margaret River hospital... and they said that I couldn't take it to Perth, because it was infected - the book was infected. I can't remember but I have a feeling that it did go to Perth somehow, and Perth was different - it was all right in Perth, but it wasn't all right in the country... it hasn't really worried me and I don't think the people around me... didn't stick up for me or anything..⁷⁵

⁷² Interview E, p.45.

⁷³ Interview D, p.39

⁷⁴ Interview I, p.77.

⁷⁵ Interview I, p.79.

The male survivor who was hospitalised in Tasmania in 1937/38 had a similar experience. His personal possessions were confiscated due to fear of cross infection.

When I first went in there I'd made some progress with my education, so I was able to write and I had with me a set of stamps, and some writing paper. And that was taken from me and I asked for it after a while and they said "You can't have it." ...I said "Why can't I have it" and they said because it would have "wogs" on it. Well I objected to that word "wogs". I thought that was just talking down to me. If they had said germs I would have thought that's fair enough, but... the word "wogs"... I thought was a word you might use for insects, rather than tiny little bacteria, or... viruses

And... my mother had bought me... a new suit, and I'd worn that into hospital... Of course that was taken from me - I was put into pyjamas - and that suit never materialised again. My mother was quite upset about that, because it was quite expensive for us... every penny was pretty hard to get, and my mother and father were quite upset that that suit disappeared. I asked for it and they said "It's got wogs on it and you can't have it". But it was never fumigated and given up to them or anything like that. Of course by the time I came out of hospital, four years later, I was far too big for it anyway...⁷⁶

The same interviewee remembers there being an embargo on travel between Victoria and Tasmania⁷⁷ and recalled an amusing story, current in Tasmania at the time, which even if it is apocryphal reflects how people felt about polio at the time.

There was a lot of superstition about... before I went into hospital a story appeared in a newspaper that someone had sent a pound note by mail from Melbourne to a person in Tasmania, but the person didn't know there was a pound note inside the envelope, and put the envelope inside the

⁷⁶ Interview D, p.38. Bearup, C. (1991). *Outcomes*, pp. 27, 30, reports the destruction of one polio survivor's toy, and another who, before her return home was bathed in phenyl, along with all her effects.

⁷⁷ Interview D, p.39.

kitchen range, in the oven space, to disinfect it... The thing caught fire and the pound note burnt, and my mother was vastly amused at that... a pound was a fair bit of money. You didn't burn a pound note, no way.⁷⁸

The testimony of a woman who had polio as an adult in 1946 reveals that, even if the doctor was not afraid of polio, he allowed for the fact that others might have been.

... the doctor came and said "We're moving you from the ward, but you've had this long enough now that it shouldn't be contagious"... I was put down in a room and he said "just don't say anything to the other patients because you've got infantile paralysis, and it could cause panic, but I'm sure that you're past the contagious stage".⁷⁹

A woman, who had polio in 1948 at eleven years of age, has clear memories of the fear and stigmatisation present at that time. Nurses were given the choice of caring for polio patients while she herself encountered stigmatisation during walks in the streets around PMH.

I have the feeling when I went into hospital that they asked the girls, the nurses, who would be prepared to look after me, because the two people that did are still friends of mine... and I get the feeling that they had to volunteer to do that job.

...I know people didn't like to be around you, because when we were at the Golden Age... **once we got back to walking a bit we were allowed to walk around the block, ...people would see us coming and they'd all cross the street.** So what we used to do was, the ones that were able to walk would cross the street and walk on the same side as the other lot, so they either had to walk in the middle of the road, or something like that. A bit nasty when you think about it.

And even after I came home, when I was... better, after the

⁷⁸ Interview D, p.38.

⁷⁹ Interview H, p.65.

three years, people would say - because I still had my crutches sometimes then - "oh, what's the matter with her" and Mum would... say "oh well, you know she's had polio"... **You could see them sort of taking a few steps back.**⁸⁰

Given the uncertainties about modes of infection that existed until the the late 1940s, and the comparison that could be made with Tuberculosis, such fear and stigmatisation may have been reasonable, however uncomfortable for the polio survivors. On the other hand, there were occasions when polio survivors were treated kindly with positive result.

There was a Launceston Gymkhana and we were taken [there] in cars by people from The Society for the Care of Crippled Children... some of the children were sitting up like walking wounded and it was obvious to the crowd in the streets of Launceston that we were a special group... as we were driven along the street in Launceston, all these people on either side of the road... cheered us, because we were crippled children. I suppose they thought they should do something to show their sympathy... There were occasions like that. We had great kindness shown to us and we appreciated that.⁸¹

The culture of denial

A corollary to the stigmatisation and ostracism of polio survivors by others was a level of denial that they themselves, and sometimes those around them, exercised in connection with their condition. Denial has been another element that has maintained the silence around polio. Evidence suggests that a strong culture of minimising or denying the effects of polio has existed, as it had done for other forms of disability, and that this is part of the

⁸⁰ Interview J, pp.85-6. Emphasis added.

⁸¹ Interview D, p.41.

strong desire to overcome the effects of the disease, even to the point of living as though no physical or other deficits have been created. In his autobiography, *I Can Jump Puddles*, Alan Marshall wrote -

The word “crippled”, to me, suggested a condition that could be applied to some people, but not myself. But, since I so often heard people refer to me as crippled, I was forced to concede that I must fit this description, yet retained a conviction that though being crippled was obviously a distressing state for some people, with me it didn’t matter.⁸²

At the time of writing his biography Marshall remembers that, as a child, being a cripple is not something he associated with himself.⁸³ He gives further examples of his refusal to take notice of his condition and considers that such a perception does not come from within the afflicted one, but from people who categorise in this way.⁸⁴ While there is no reason to doubt his childhood experience, it is clear that his outlook includes his reflection on this subject as an adult.

Evidence also suggests that the attitude of some members of the medical profession encouraged those with a disability to overcome their deficits and become part of the mainstream of life. The West Australian orthopedic surgeon, the late Sir George Bedbrook, wrote in the Foreword of polio survivor Vivienne Overheu ’s

⁸² Marshall, A. (1955). *Puddles*, p.71.

⁸³ His disease was polio, but a similar attitude can be detected in connection with other forms of disability where it was believed the effects had to be overcome, minimised or denied to ensure social and personal success to the survivor. See for example Humphries, S. and Gordon, P. (1992). *Out Of Sight: the experience of disability 1900-1950*, Northcote House, Plymouth, p.42 “For David Swift the ultimate aim was to hide his disability altogether and to make himself appear exactly the same as other children”.

⁸⁴ Marshall, A. (1955) *Puddles*, pp.99-100,195.

Throughout the narrative, it is her ability that shines out rather than her disability and this, indeed, is the goal that all disabled people are striving for.⁸⁵

After her paralysis in 1954 the author battled with the consequences to live a full life which included marriage, children, and duties as a farmer's wife. The title of her book, *It Helps To Be Stubborn*, was chosen because of the particular brand of determination - the "cussedness" - the which gave her the will to fight.

A heroic style in the face of difficulties, reflected in strong willed behaviour, stubbornness, denial and, often, an outstanding level of achievement, is common amongst polio survivors. The evidence suggests that once a person became paralysed the prevailing social and medical culture trained them to overcome their difficulties, an attitude that often led to what could be described as overcompensation. As a result many drove themselves to reach the same level of achievement as those living without a disability. The following report on the 1981 West Australian People's Marathon provides a case in point. Although the official maximum time allowed for the race was five hours the time keeper left the timing gates open a few minutes longer to allow the last competitor, Tony Parnell, a polio survivor, to cross the line. Parnell -

...whose right leg is completely withered with virtually no muscle structure, ... uses it purely as support while he drives with his good leg. A magnificent effort... he took up running because his doctor told him he couldn't do it, and he decided

⁸⁵ Overheu, V. (1984). *It Helps to Be Stubborn*, p.5.

The biographies of polio survivors frequently chart the course of one who exercised rigid discipline in order to restore lost capacities. If regained these capacities can be retained, at first, because polio is not a degenerative disease. Many survivors describe themselves as having “had” polio, and have difficulty acknowledging the legacy of special needs the disease created. Indeed, some have gone out of their way to ignore them.

After surveying several biographies, Mary Westbrook summarises the experience of polio survivors as governed by “ignore your distress: hard work and cheerful acceptance will overcome polio”.⁸⁷ Denial and hard work was the salve applied to wasted muscles and twisted lives. “Use it or lose it” was the programme instilled into many polio survivors, and by this means they built up their strength, overcame the effects of their affliction and moved into the mainstream of life.⁸⁸ Unfortunately in the long term this has proved to be the reverse of the strategy needed to care for and preserve weakened muscles and twisted bodies. For some survivors the dividend is now being paid in significant psychological distress,⁸⁹ and the curtailment of activity at an earlier age than might otherwise have been the case. As understanding of PPS

⁸⁶ Western Australian Marathon Club, *Newsletter*, Spring 1981, p.12.

⁸⁷ Westbrook, M. (1996). Early Memories of Polio-Survivors: Memories Versus the Official Myths, *Proceedings*, International Post-Polio Conference, NSW, p.5-6.

⁸⁸ Scheer, J. and Luborsky, M.L. (1991). Post-Polio Sequelae: the cultural context of polio biographies, *Orthopaedics*, Vol. 14, No 11, pp.1178-9.

⁸⁹ Conrady, L.J., Wish, J.R., Agre, J.C., Rodriguez, A.A., Sperling, K.B. (1989). Psychologic Characteristics of Polio Survivors: a preliminary report, *Archive of Physical Medical Rehabilitation*, Vol.70, p.462.

develops polio survivors are learning they must “conserve or lose it”, a program that involves them in a complete reorientation in life. Conservation means having to recognise and face their own special needs, refusing to deny or minimise their difficulties, and letting go of the pretense that they can perform as people without a disability. This is the challenge facing polio survivors in the 1990s.

Amongst these interviews denial was at times part of the personal style of the interviewee,⁹⁰ was present in the form of not expecting to get polio,⁹¹ or not mentioning the subject, even amongst close friends.⁹² Sometimes the polio patient was denied any knowledge of what was wrong with them, even when the infection had first struck. A young girl's febrile illness, followed by her complete collapse, was left entirely unexplained by family and medical staff. She later recalled -

...nothing else was said about it and nobody told me what it was I had wrong with me, they just took me to hospital and I used to think it was really funny that nobody would come in. Mum and Dad weren't allowed to come in. And I had two nurses that used to just come in and do what they had to, all dressed in white with masks, and heaven only knows what. And I used to think "well, this is really awful", but nobody would say why I had to be like that.⁹³

The wife of a severely paralysed male survivor records that she got caught up in her husband's denial, expressed in his attitude

⁹⁰ Interview H, p.72. "I can't take empathy, I can't take sympathy, I like people to understand that".

⁹¹ Interview F, p.53.

⁹² Interview I, p.77. "I don't think ... and I ever talked about me having polio. We were just friends and that was that".

⁹³ Interview J, p.85.

...the way he dealt with it was to pretend that it was entirely normal to live the way he was, with the disabilities that he had. And in hindsight, looking back now, I can see that that influenced my attitudes as well and we lived as a family completely as if it was perfectly normal to have a permanent tracheotomy, to have the bedroom set up like an intensive care unit, to have oxygen cylinders on the verandah and to live in a wheelchair and so on. And all the other things that went with it. And when I think now, back, it was really very abnormal to be living the way we were, but we pretended that this was perfectly normal. And that was the way he coped with it.⁹⁴

Others also tried to hide their condition and carry on as "normal" even though there was a cost. This approach, learned in the polio years, persisted in later life to reveal the denial and determination that enabled polio sufferers to become polio survivors. A mother of two recalls -

The tears I shed trying to get the washing done, trying to cook the meals, trying to do those things for the children and act as a "normal person", because it didn't show... they don't see the brace on your back and I always wore slacks so that I hid the caliper and people expect you to do everything that a normal person does. And I'm afraid I did right through until I packed up. All that a normal person that had not had polio, I had done that and more. I pushed myself to prove that I was able to do it, that I was capable. I was not going to let it beat me.⁹⁵

You know I don't like people doing for me. I have the community home care car coming to pick me up and they want to open the door. I say to them "don't take my independence away", and I think all polio people have this, "we're going to do it". I've seen it in them. ...where other people will say "Oh, my arthritis is so bad", well we've got arthritis too, osteoporosis too, but we don't tell people. They say "How are you?" and we skip the answer. Ask them how they are, or... If they ask me how I'm going I say "on my legs,

⁹⁴ Interview G, p.60.

⁹⁵ Interview H, p.69.

but only just". So polio people don't make a big issue. I haven't found any of them that make a big issue.⁹⁶

The most deeply rooted account of denial recounted by these interviewees came from the family of a woman who was affected at four years of age. Their shame at having polio in the family caused them to cover over the fact through offering a variety of stories about what happened. She recalls a changing understanding of polio, and herself, over many years. The unwillingness of the family to discuss the subject caused deep seated issues for her in her adult life.

...my understandings around me having polio... changed over time, because I'd initially... been told different things. One was that I was born with it and the other.. that I got it when I was four... in hospital having my adenoids out.

... sometimes I actually denied I'd had polio, but then when I was... ten I had to go again for physiotherapy and so it became obvious that... I had had polio... At that stage my mother told me that ... I was born with it... I knew that wasn't true, but... it seemed better... than having got it for myself.

When I was about sixteen... I asked my mother again about it, because it had come up somehow or other in conversation and I realised that I hadn't been born with it, that I had actually got it when I was in hospital.

I do know that it was **never** discussed; I mean it was **never** talked about, except at really strange occasions like when I'd go to buy shoes, my mother would **always** say, much to **my** shame - which is sort of interesting now - that I'd had polio, which explained...[why] the muscles had collapsed in one foot . She would **always** say it and I used to beg her not to say this to these **salesmen** - that I had polio... it's really taken me a long time, and... it was only after the polio program on TV⁹⁷ that... she volunteered the information about getting polio. I... knew unless it came from her I wasn't going to get accurate information. If I asked her she

⁹⁶ Interview H, p.70.

⁹⁷ ABC TV Social History "*TIME FRAME - Polio Days*", March 1997.

would fudge it and I assume I know that because of past experience, and because of these different messages.

...when she was talking about it she was very angry... about it and said "I've always blamed the nurse" because her story was that... my mother thinks that the damage to my leg was caused by the nurse pulling my legs down when I went into anaesthetic, because I was curled up in a ball. But she was angry the whole time she was telling me about it.

None of my mother's story has any medical grounding. It's just that from it you can work out what happened; that the reason I was probably in hospital...was because of the incredibly sore throat that I would have had from having polio... When I came out of the anaesthetic I was complaining about my leg aching and my mother said "that was the first we'd known about it"... Then this story came out that when I had gone in under the anaesthetic... I had been all curled up in a ball and they had had to straighten me out and strap my leg.⁹⁸

I've always felt ashamed of it. It's taken me 40 years not to... I mentioned it in the first 35 years of my life to maybe one other person, other than my friends at school. After that experience I **never** mentioned it. And I would hide my foot, which I'm doing now. I... always hide my foot.

The thing that is most memorable for me at the time was fatigue... I was constantly tired, and I was never allowed to say that I was tired. We lived at the top of the hill and... would walk down to the shops, we would walk down to the shops with my mother, and I... remember being so tired that I just didn't know how I was ever going to get back, even as a little child. I used to say to my mother "I'm tired, I'm tired" and she used to say, "You can't say that". So I used to say "I'm tidy, I'm tidy". I was never allowed to be tired... That fatigue is for me, the thread that runs through all my life, and has been a really debilitating force for me... I link that to the polio ...the lack of treatment, the lack of being able to rest, and to recover, and to recuperate, and to be treated with sort of respect, in a way that a serious illness demanded.⁹⁹

None of those interviewed referred to death from polio, though the

⁹⁸ Interview C, pp.26-27.

⁹⁹ Interview C, p.29.

mortality rate was recorded during an epidemic, and deaths were reported in the press. The argument from silence would suggest that the deepest level of denial amongst polio survivors and their families may have been reserved for the fear of death.

The will to overcome disablement

The stories of polio survivors witness to their strong determination to overcome the limitations of their disability. Susan Sontag refers to the German philosopher Schopenhauer when she asserts the power of the mind in overcoming the body -

“The will exhibits itself as organised body”... Recovery from a disease depends on the will assuming “dictatorial power in order to subsume the rebellious forces” of that body.¹⁰⁰

For many their discharge from hospital would be testimony enough to their strength of will. But stubbornness, a heroic style in the face of difficulties, overcompensation and, often, an outstanding level of achievement, is common amongst polio survivors.¹⁰¹ While many drove themselves to reach the same level of achievement as those living without a disability, high levels of denial can also be found. The following testimony from a respiratory patient provides evidence of the medical culture that prevailed in the 1950s, and further evidence of fear and repugnance shown towards the iron lung.

I must tell you another terrible thing that was done, because it still concerns me. Owing to the imperfect understanding

¹⁰⁰ Sontag, S. (1991). *Illness as Metaphor*, pp.44-45.

¹⁰¹ A wide range of achievements is evident amongst this sample of interviews, including “Citizen of the Year” and an AM.

of muscular paralysis, there was a tendency to say that, if you were taking too long to recover, you were becoming psychologically dependent on, say, the ventilator. This is an outrageous way of treating someone who is severely ill, and of course, in my case, desperately desires to get out of such a coffin-like machine. It is like a coffin - just the head protrudes. And to help overcome this so-called psychological dependence, they used to turn off the respirator at night. When they did this, I promptly woke up and couldn't sleep. So in the end I had to say to the physician in charge... "look, it is unphysiological to interfere with someone's sleep, who's exercising during the day. If the respirator is left on during the night and I have a proper sleep, I am confident that within another week I'll be free of the machine". So he gave my instructions to the staff and they stopped turning the respirator off during the night. A week later I was free of the machine. But not free of the problem of recovery, by no means.

The process of rehabilitation was long and arduous, but the determinative moment is unambiguously recognised.

It took three months before I could lift my right arm off the bed. My right arm was the most severely paralysed, because that's the arm one uses in serving when playing tennis.¹⁰² You see the severity of paralysis depends, at least partly, on the amount of physical activity during the period the virus is multiplying in the body, because it's easier for the virus to get into the nerve terminals when they've been active.

The problem of rehabilitation is revealed when the day comes and the patient, or subject, realises that he isn't going to get much better unless he does something about it himself. It's no good leaving it to physiotherapists to wave your legs and arms around. You'll never get any stronger doing that, **only one's own efforts can lead to recovery.** Others can help, but they only help. No-one can do it for you.

So the morning I realised that I wasn't going to get any better unless I did a lot about it myself was the crucial period in rehabilitation. **I made it my ambition to get out of hospital before a year had passed, and I think I succeeded...** the alternative is worse. I think that it is true

¹⁰² He had been playing tennis at the time of his febrile illness, consequently his right arm was most severely affected.

generally of people with severe polio paralysis - **If they recover it's through the determination to keep going and make the most of what abilities are left.**¹⁰³

The mother of two who battled to recover sufficiently to be discharged from hospital so that she could see her children again was equally resolute. Repatriated to Holland with her husband, who was a Dutch citizen in Australia during the conflict with Indonesia, she was determined to appear to her relatives as if she was able bodied.

I was determined I would have my photo taken in Holland and I would put a pair of shoes on and hide the caliper, and then, of course, we never thought we'd be able to come back so quick and I'm on a ship with this jolly caliper again... and I thought I can't let my mother and [those who] were going to be there to meet us [see me in this] so out went the caliper - out the window for King Neptune and his flock, because I **had** to walk without it, and I was **determined** to hold myself erect and walk off that ship - but you know you can't really.

The life that followed the return home continued to be marked by the same expression of strong will. She kept moving, and living, as if she had no disability and was rewarded, for a time, with the appearance of being able bodied.

...we got a job on a farm... I had to take [my son] to school three and a half miles a day, over a gravel road... I would push the bike pedal with the right foot, but the left one would only tap it as it got to the top, but I managed... I did that for one year, summer and winter, but I knew I couldn't do it the next year, because it was a man's bike and [my daughter] had to go to school, so we went to Fairbridge Farm and I worked as a cottage mother, with my husband... I was still battling, but I kept going. I didn't give in. I've never given in to the polio. And then I seemed as if I got over

¹⁰³ Interview B. pp.20-21. Emphasis added.

it and I even got away from even having a limp.¹⁰⁴

Polio survivors in this sample were not deterred from the tasks of giving birth to and raising a family and sharing the work of house and sometimes farm. For some the choice was deliberately made while others expected to continue as those before had done, without any alternatives being brought forward for consideration. A woman survivor who, after three years in hospital as a teenager, returned to grow up and marry into the dairying district that was her home said -

I don't know what was the normal situation and what wasn't the normal situation. I just did what I wanted to do... I know when we had our babies, like most people you carry your baby around in your arm. I never found that good. I always had to have baby sitting on my hip. Of course you couldn't run after the little villains when they took off, but basically I think the kids get to know what you can and can't do, and they sort of compensate for things as well.

We had a dairy farm; we worked really hard at that and we had our three children. I was helping him in the dairy and it was very hard work... we were saying the other day "Isn't it great that we don't have to do that now". It would be freezing cold and pouring with rain, icy morning, you've got to get three little kids organised and you'd go out - I always did the calves and all that sort of thing - you'd be up to your knees in water and it would be a real disaster.

I found it very, very hard, but it's not until now when I look back on that... I didn't realise everybody didn't think the same thing. I didn't realise everybody wasn't finding the going as difficult. But it was very difficult for a while... things that I can't do I find a different way of doing it. If I can't do it one way, you can do it another way, so **I can't say that I've not done things because of polio.**¹⁰⁵

Other survivors who returned, particularly to farm work, were

¹⁰⁴ Interview H, pp.66-67.

¹⁰⁵ Interview J, pp.88-89. Emphasis added.

forced to find alternate ways of performing tasks because physical strength would not allow them to continue as before. A farmer was able to negotiate a reallocation of tasks.

... because I was in a partnership... my brothers were good, they did the heavy work. I was able to do my bit I think, but I did mostly ploughing up work and that sort of thing, where they did the heavy bag lumping... We were in partnership until 1962 and then I was able to gradually - see when I went home I was on crutches and calipers on both feet to keep my foot up - but I was gradually able to work with using just a walking stick. In fact, a lot of the time I didn't need a stick at all. I only used a walking stick for long walks. I always carried it with me on the truck, in case we had a breakdown or something.¹⁰⁶

The families of polio survivors required a similar strong sense of determination, and sometimes this was tinged with deeper emotions and a sense of the struggle being a spiritual matter. A mother reflected -

I always knew - I don't know how I knew - that love would win out. I... knew that one day it'd all be right and I don't know what would be right, I don't know how it would be right, but I just knew that whatever I did; I mean I never, ever, for one minute gave up ... something, some power would keep me going. And I did and it worked out.¹⁰⁷

Not everyone was as able, or as willing, to reveal the way in which they had made sense of their experience of polio.

Rehabilitation and after care

The occurrence of polio epidemics created a need for expanded

¹⁰⁶ Interview K, p.93.

¹⁰⁷ Interview A, p.14.

rehabilitation services in Australia and gave impetus especially to the development and professionalisation of physiotherapy and massage.¹⁰⁸ Obtaining sufficient trained staff to meet the new demand was problematic, especially during an epidemic, as the process of rehabilitation called for periods of intensive care followed by a regular programme of after care. Those interviewed for this study remember being put in iron lungs, splints, and receiving physiotherapy, hydrotherapy and massage as part of their rehabilitation and after care.¹⁰⁹

The item most feared in connection with polio and polio rehabilitation was the iron lung or tank. Those who required respiratory treatment in a lung may not have survived without it, but this did not diminish the horror it aroused, or the discomforts it brought. And there is evidence to suggest that the nursing staff themselves feared the iron lung due to the stringencies it imposed on their work. An iron lung patient remembers playful attempts by himself and others to ameliorate the situation.

...in those days too, the nurses were pretty scared too. That was when they used to do their training in the hospital. They would send the girl into a room full of three iron lungs and of course they used to be scared out of their wits and we didn't realise, of course, that they were frightened. They tried hard to be self confident and sometimes we played a trick on them... they were told that those lungs were keeping us breathing and that if they stopped, we'd stop breathing, and it was a bit scary for them - you know, about

¹⁰⁸ Detailed accounts of these developments can be found in two so far unpublished works; Martyr, P. (1994). *The Professional Development of Rehabilitation in Australia 1870-1981*, PhD Thesis, History, University of Western Australia, chapter 5, and Martyr, P. (1996). *A History of the Victoria Hospital (Infectious Diseases) to the Royal Perth (Rehabilitation) Hospital, 1893-1993*, Perth, chapter 5.

¹⁰⁹ For example, interview K, p.92; I, p.75; L, p.98.

an eighteen or nineteen year old girl. On one occasion three of us - I said "You've got to watch me, I'm liable to choke". I said "Philip over there, he's liable to have a fit" and there was another guy, Alec "he might do something else" and I'd give them the signal and we all started to perform, so the poor girl just put her head out the door, and yelled out "Nurse". That's when we realised that they were so frightened. But generally the nurses seemed to enjoy working with us and of course the whole ward was full of iron lungs at that period, that's when all the people in iron lungs came. I believe there was about fifteen died.¹¹⁰

The doctor who was a respiratory patient had strong feelings about the experience -

I might say that being treated in an iron lung is a fate almost worse than death. Total paralysis means total dependence. In those days, that is 1953, patients were put in the lung, as they called it - very few of them came out alive. And the reason for that was the primitive treatment. There were no measurements of anything to do with respiration. Management was entirely based on clinical judgment, which is a very blunt weapon for anyone who is totally paralysed and requires assisted ventilation.

It was only years later that I discovered... the man in the tank respirator before me, died as a result of vomiting and aspirating his stomach contents into his lungs...

...once you... were placed in an iron lung, it was miraculous if you ever came out of it and survived the experience.¹¹¹

And miracles did happen. Despite its horrors the iron lung allowed many to achieve respiratory independence and return to as normal a life as their recovery from paralysis would allow.¹¹² Of the three who record being placed in an iron lung one, although mobile, requires the respiratory support of an iron lung at night and has

¹¹⁰ Interview F, pp.50-51.

¹¹¹ Interview B, p.17.

¹¹² Public Health Department reports do not compare the number of deaths from polio with the number who required iron lung treatment.

continued to live in hospital for twenty seven years.¹¹³ He recounts his own slow progress back to mobility after severe paralysis in February 1956 -

... for the next two or three months it was pretty grim ...I lost that much weight that I had bed sores on my elbows and shoulders. They used to turn the head of the tank down so all secretions would flow out from the lungs and, with the head being down, you tend to slide up to the head of the tank, and my shoulders would rub on the end of the tank. So I had four bed sores, one on each shoulder and my elbows, plus a carbuncle on my back. I think the thing that saved me from dying was penicillin. I was given six hourly injections of penicillin in my bottom, which was pretty much skin and bone and that was pretty painful.

From then on it was just a matter first of all of trying to learn to breathe. I couldn't breathe at all - I don't know how long this was after, about two months I suppose - with breathing exercises they used to open up the lid of the tank and say "breathe", and you try and breathe, whatever muscle you've got. You might go for about two or three minutes and that was it, just couldn't breathe at all. ...it took months and months to build up my breathing... I can't be sure of the exact time, but about four or five months I could breathe for an hour or so, and that went on until about... August ...the first time they stood me up at the side of the bed. I had sufficient power in my legs so I could lock my knees [and]... stand. I said to the physio, "Can I try and walk?" He said, "Yes". I took about one step and that was it - I was exhausted and they just put me straight back in the lung. And then it was just really months and months of physio. They couldn't work us really hard because our breathing was that bad. You couldn't do any physical effort, because you'd just get short of breath. On one occasion I was walking from one room to the next, without a physio, and I got half way and my breathing just packed up all together so they just picked me up and put me straight back in the "tank", which fixed things up of course.¹¹⁴

The need for ongoing respiratory support added burdens which those survivors had to contend with on a daily basis. The wife of

¹¹³ Interview F.

¹¹⁴ Interview F, p.50.

the man who had respiratory difficulties and a high level of residual paralysis revealed how demanding everyday life could be -

Because of his breathing problems, his tracheotomy and so on, it took about three hours for him to get his breathing organised sufficiently to be able to leave the house in the morning, so it took a lot of physio and suctioning, and so on - a lot of which he did himself - to get things organised. You couldn't ever get up and get dressed and go out. It took a lot of time and different things.

We tried getting up earlier. It didn't make any difference. He still wasn't ready until around the same time ...daylight saving caused a problem, because he ended up being an hour later for work, because he still couldn't get his chest organised, even though he got up an hour earlier, it still took that particular time of the day before he was right.¹¹⁵

The amount of time it took to "get going" meant that, although he had been present for the birth of their first child, when the second child was born the circumstances were such that he was unable to make the hospital in time.

Other forms of rehabilitative care were equally intrusive, absorbed huge amounts of time, and placed great burdens on health services and families alike. The parents of children too young to manage themselves were taught how to maintain their after care regime. The mother of a small boy records -

...when he was sent home they told me that it was up to me if he ever walked again. That was pretty horrendous stuff you know. I had five hours a day of exercises to give him... I had to go back to Princess Margaret three times a week to see the physios there and they would show me what to do... we didn't see friends, we didn't go out, our **complete** life changed. We didn't do anything but help this lad... ¹¹⁶

¹¹⁵ Interview G, p.61.

¹¹⁶ Interview A, p.5. Original emphasis.

Those able to self manage their recovery were required to do so. A teenage girl was sent home for a break with a set of exercise directions carefully written out by her physiotherapist.¹¹⁷ Another was required to practice her walking daily. Her family insisted she do her exercises in the hallway of the house, while everyone else was having dinner, due to the shame they felt over her polio. She said, "I was... separated, ...so that no one would ask any questions".¹¹⁸

A young boy spent two years in a general hospital and a further year in an after care home, elected to stay on an extra year to allow for his schooling. He said -

I was supposed to sleep in a splint, and I had regular massage. It was called massage in those days, it probably amounted more to physiotherapy... the people who applied the massage were called masseurs or masseuses, because they were all female...¹¹⁹

Children were assisted with their education, and a different of measures were relied upon to occupy them while in hospital. Excursions were also enjoyed by those able to participate. A variety of programmes were in place at PMH during the late 1940s and early 1950s as the following testimony reveals.

...we had our schoolwork to do in the daytime - well, for a few hours - with [the teacher] who was at Princess Margaret. She... was a small lady that used to buzz around and make sure everybody was doing their reading. We had tables that used to sit over you and came up to a height where you

¹¹⁷ Directions for Dorothy Shepherd, in the possession of the author.

¹¹⁸ Interview C, p.28.

¹¹⁹ Interview D, p.36.

could put your books and things on. You couldn't do a lot of writing because of the position you were in, but she used to ask questions on what you'd read...

At Princess Margaret on a Saturday morning they had their own little radio programme, where you could ask for requests... When we got out to the Golden Age we had our own schoolroom, which anyone who was able could go along to...

And there was... a little green ambulance... painted green and on the side *Princess Margaret Hospital for Children...* written on it... About once a week, everyone used to get loaded up and we'd go some place. The ones that were lying down laid on the stretchers on the side and we'd go for a picnic, or a morning out; we'd go to the circus; we went to a few things at His Majesty's Theatre and we'd go down to Fremantle. I remember one day we had morning tea on one of the big boats at the Captain's table. Quite a lot of outings. We'd go down to the beach. In the summer we used to go down to Hamersley Pool and everyone would have their swim in the water, their exercises in the water instead of being stuck at home.¹²⁰

The continuing uncertainties surrounding polio may be one reason medical staff chose to improvise, or rely on old methods to achieve a result. A mother of two recalls -

...the doctor said "...you're going to... have physio". So they brought... a physiotherapist, and she came with a car battery and connected it up to my legs and my arm and tried to get the muscles to work again, but see they wouldn't. It didn't do anything and doctor said "No, we'll have to try to get you up, but you mustn't try to get out on your own". But can you imagine a mother not trying to get up on her feet? I got out gradually, bit by bit, but it was an awful feeling. But I was determined to get up and walk. It took a while and my foot dragged, but I managed. As I left hospital I'd had a collar made. I had a surgical corset made and I had a Thomas splint made. It was one went that from the heel to the hip and it didn't bend at the knee, they were straight up.¹²¹

¹²⁰ Interview J, pp.86-87.

¹²¹ Interview H, pp.65-66.

And a male survivor records that his doctor resorted to an unorthodox method to assist his recovery.

I had completely lost the use of my bowels and bladder and I was being catheterised all the time and the bladder part of it was a concern, because of infection... the doctors came up with the idea of injecting curare, which is what the Red Indians used for tipping their arrows - muscle constricting poison. They got the dose right. It didn't kill me..., They told me it was what the Indians used to use on their arrow tips to kill... whatever they wanted to catch for dinner... that was one of the treatments.¹²²

The impact of Post Polio Syndrome

Amongst the present cohort of polio survivors the coming of Post Polio Syndrome has caused a complete reassessment of life and contributed to them achieving a new identity. The onset of fresh difficulties arising from the original destruction caused by polio radically reshaped their vision of their past, and their future prospects. Because of the shock brought about by PPS their stories are now available to us in a way they may not have been prior to the 1980s.

The identification of PPS came slowly. At first the difficulties indicated by polio survivors were dismissed by their doctors as being an element of the aging process. But as evidence accumulated from the cohort of polio survivors it reached a critical mass of information that could no longer be ignored and in the 1980s research commenced.

¹²² Interview K, p.92.

In this sample responses to the news about PPS varied widely, even within the same person's story, a reflection of their own adjustment to new conditions. For some it came as a relief, because it put a name something that was going on but had no diagnosis. For others relief only came later, after they had worked through the evocation of their worst fears arising from the past and projected into the future. Some expressed the view that handling PPS was more difficult than dealing with the than original bout of polio because they knew their age was against them.

The woman married to the man who was severely paralysed and had respiratory difficulties testified that, from 1969, her husband -

...was deteriorating from about ten years after I first knew him... and for the next ten years he deteriorated quite dramatically, and ended up in intensive care a number of times. We heard whispers that something was going on with post polio, but it was so rare that it couldn't possibly be what was wrong with him... but we were looking for more information. It wasn't until 1989 that we eventually found it and realised that it was very significant to the problems that he was having, but unfortunately he died two weeks after we found this information.¹²³

PPS curtailed the career of the doctor who had polio. He described the condition, and the discomfort it brought him.

I returned to an appointment at the University of New South Wales... in September 1964. Except for a year at Harvard, I remained there until the end of 1992, when because of increasing weakness I had to resign - what's referred to as the post polio syndrome, but really is the accelerated loss of power that is partly aging and partly because one had lost a lot of one's motor nerve cells. One is apparently more

¹²³ Interview G, p.62.

susceptible to the effects of aging, whatever that is, and for this increasing weakness there is no treatment. You all get weaker as you get older, but if you've had polio you get weaker faster, and it's very trying.¹²⁴

The farmer who returned to the land expressed real difficulties at the coming of PPS, which he found more taxing than having to deal with the original polio.

The hardest part of rehabilitation was going downhill again, not knowing what post polio syndrome was. That was harder than getting polio.

For several years we used to come down to Busselton... for our annual holiday... while the kiddies were young and growing up. I found that each year going home was getting harder. That was taking place... in the late 1970s and certainly into the early 1980s, and I was coming to the realisation... that I wasn't looking forward to going to another year's work. It was getting hard.

[My wife] was in her prime and enjoying life... she enjoyed farm life and had a social outlet with pottery and one thing and another... That was the difficult part because [my wife] was enjoying it so much and I was getting so I wasn't enjoying it. And, of course, I was the one that took her there in the first place...

But... because I was realising that it wasn't my age, it was just something was happening and I didn't know what. We went to Perth and had an assessment, but this was before post polio was known... although the doctor that assessed me did refer to it, but I don't know whether she wasn't familiar with it... because no-one was, but she must have been hearing something about it. Her assessment was that she could find nothing... So, of course, you come away feeling that you're giving up...

[My wife] and I went to a meeting up in Perth, where it was explained, ...it was still only in the early stages. But... you could see it was a terrific relief, not only to me, but people around the hall... that it was... a load off your mind, because you couldn't help but feel that you [had been] letting yourself down as well as everybody else.

¹²⁴ Interview B, p.24.

That... was a bigger emotional strain than actually getting polio... When I first got [polio] I never believed I wouldn't get right because I suppose at that stage in your life you can't see why you shouldn't. But at the other end of the spectrum you know that ...your age is against you and fighting back is not going to be as easy. But we've learned to live with it, because now that we know that it is a real complaint. The first decision I had to make, of course, was about the farm... It became increasingly obvious that I couldn't carry on, so that was a major decision... a lot of heartache.... [because] our son was working on the farm and [my wife] was enjoying it, and I was the odd man out.

It was probably the hardest decision of our lives. I wasn't a very popular guy.¹²⁵

The view that knowledge about PPS was bad news is evident in the testimony of another subject, this time a woman who felt it drew her back to the horrors of the original, distasteful experience, which kept her hospitalised for three years. Her transition, from initial feelings of dismay through to recovery of the familiar spirit of determination, is evident from her story.

...I'd been getting more tired and finding life a bit more difficult, and... we knew they were having their meeting in Bunbury... so we went along to see what all this was about. I can honestly say that I felt worse finding out about post polio than I did polio in the first place, because I had these horrible visions of getting back to how I used to be before, especially when one of the doctors said that people that were between the age of ten and thirteen age group when they got it, ones that took a long time to recover, were going to get the worst of the post polio syndrome. I felt devastated, honestly. I just didn't know what to do. It took me... months... to actually get it into my head that... with what I do, if I'm careful, I will not get back to that stage. But even now sometimes, I sometimes think "it can't just be happening - not again!" I think that is worse than the first time around. But I beat it the first time. It's not going to get me the second, I can tell you. But now I can look at it and think - if I have to do things differently again, and if I

¹²⁵ Interview K, pp.93-94.

get to the stage where I can't walk to do what I want to do - I'm going to ride. He's still healthy - (points to husband) - he can push me! ...But I'm not going to sit home and let it get me beat. If I want to go somewhere I'll do it. If I can't walk, I'll ride. But it has taken...a long time to actually think that way.¹²⁶

Others were filled with the same sense of dread when the news about PPS broke,¹²⁷ and some testify that it made them worry about all their petty ailments, such as increased tiredness,¹²⁸ aches and pains.¹²⁹ The most dramatic sense of relief is evident in the testimony of the survivor whose family coped with her original polio by denying its existence.

When I first came in touch with literature about post polio, that was a really profound experience. Because I was having enormous pain with my foot and my leg when I walked, and I was terrified by this. ...It was to do with the fact that I'd just started walking mornings and... would be in quite considerable pain, and still am, if I don't tie my shoe up properly, do all the right things.

So I just cried for about 3 days when I read this literature, because it just made - I could make sense of my life. I could make sense of the fatigue. I used to complain about this the "psychic fatigue". I couldn't describe it in any way except to say that "my soul was tired". And I had always experienced it. So by getting this literature... I understood that polio ...was actually quite serious. I'd always been taught to dismiss it, it was nothing. "Don't make a fuss; don't make a fuss of her". ...I had to reclaim my polio experience as something that had happened, that had consequences. I [had dealt with the] psychological, but at this time I was dealing with the physical. And so I had to almost relive my life and factor in polio, all the way through. ...That was a devastating experience and that took me... two or three years to not cry every time I heard the word Post Polio ...every time I'd go to

¹²⁶ Interview J, p.89.

¹²⁷ In my own experience the news aroused depression, fears for the future, and worries about any kind of fatigue or aches and pains.

¹²⁸ Interview L, p.100; E, p.47.

¹²⁹ Interview D, p.39.

ring [the Post Polio Network] ...I would just cry, I couldn't talk. I'd have to hang up. I finally got their newsletter and I just used to get it and cry, so I never actually got to read it very much. It was like I had a different life that I'd denied and never been able to acknowledge this incredible thing that had happened in my life.. and had impacted on my children.. on my ability to ...raise them [as] their mother.

It was huge... having done that, I feel like I have reintegrated polio back into my life, and now... it's radically different in that now... I factor that in. It has affected me. I **do** experience fatigue. I **do** [have] inability to keep warm and I **do** have pain in my foot and my leg. It's like I denied it all those years as well, even though it had all these incredible effects... [an] it profoundly affected my whole life.¹³⁰

The formation of the WA PPSG (Bunbury) and the WA PPN (Perth)

A feature of PPS has been that it has generated a vast amount of self-help amongst polio survivors, principally through the formation of networks and support groups. Conferences, at which updates of medical and other forms of professional information are offered alongside opportunities for personal sharing, are now held regularly in Australia and New Zealand, and other parts of the world.

The first moves towards gaining support for polio survivors in Western Australia was made by a group in the south west regional town of Bunbury who, in June 1988, formed the Western Australian Post Polio Support Group (WAPPSG).

The next year, in August 1989, the Perth based Western Australian Post Polio Network (WAPPN) was commenced by the nurse who

¹³⁰ Interview C, p.32. Emphasis added.

The first night we had the big meeting I got 110 questionnaires back from the 230-odd people that had attended, which showed me that there were a lot of other people having similar problems... and there was a need for something to be done about it.

We've now got 1400 people that have had polio registered in WA. Ninety percent of them are having further problems and the research we're doing is coming up with a lot of answers that is benefiting people. I really feel that I served an apprenticeship during my [marriage] and it would be a waste of that experience not to be putting it back into helping people that I can help.¹³¹

The two groups function separately and according to different guidelines. The WAPPSG offers monthly meetings at which information is shared and for polio survivors offer support to one another.

The WAPPN offers a regular clinic where polio survivors may have their needs assessed, conducts some research, and provides information for polio survivors.

Some political tensions exist between the two groups, but this is limited by their different orientation and geographical base. Both are lively and expanding groups which have met an important need amongst polio survivors in Western Australia.

¹³¹ Interview G, pp.62-63.

CHAPTER 10: Conclusion

The title *Fear, frustration and the will to overcome*, emerged from this research and accurately encapsulates many people's knowledge and experience of polio. There are several layers to this history and the presence of the disease in the community evoked varied and ambiguous reactions. I have examined the discussion the virus generated amongst members of the public, researchers, health professionals and polio survivors, in order to draw conclusions about the relationship between disease and society, especially in Australia.

This thesis is a narrative social history investigation of community responses to poliomyelitis, and the impact of the disease on those who experienced it, particularly during the epidemics that occurred in Western Australia between 1938 and 1956. In this enquiry I have been concerned with the relationship between memory, history and polio and through this work I have attempted to allow space to more voices than have previously been heard in the official polio story Western Australia.

Until recent years there has been little ongoing discussion of polio. The vaccination programme eliminated the public profile of the disease, and it is evident that polio survivors were inducted into a culture of denial in which there was little or no validation for telling their stories. Many polio survivors have remained silent about living with the consequences of the disease and more would

have done so had not the late effect of polio itself revived their memories. While many polio survivors won't go so far as to write their story, a consequence of the emerging post-polio support systems is that they are being asked to articulate their experience, to doctors, support group workers, and their fellow polio survivors, and the field is available for the researcher who is willing to enter into it.

Reworking the collective memory of the polio era in Western Australia in this way has allowed a richer narrative of this period to begin to emerge. The reader, and future researchers may now be able to see that there are many nuances to consider in this history. The voice of polio survivors themselves have been left out of the official record and within the context of this enquiry I have endeavoured to allow them plenty of space to speak for themselves. The commentary of the newspapers has largely been missing from earlier accounts, and the archives themselves have warranted a more thorough examination than they have previously had for this purpose. The official history, as it existed in the form of Annual Reports from the Public Health Department, and in books such as that written by Snow, are bereft of the experience of the people who suffered from polio and received support from medical and health authorities. It is evident from my research that the official version of the polio is very different from the one that is remembered by polio survivors, and at times it is difficult to reconcile the two. The "memory jolt" caused by the coming of Post Polio Syndrome is only now being absorbed by polio survivors and

historians. There is much more of the polio story to emerge, and given the amount of material obtained through this small sample of interviews, compared with the number of people there are with a story to tell, there is plenty to occupy historians for some time to come.

I began this research with the whole of Australia in view but the abundance of material available led me to concentrate on Western Australia. Limiting the scope in this way has meant the possible loss of insights that may have been gained by being able to examine the response to polio across different states, but where possible I have made comparisons within Australia, and with New Zealand, while chapters two and three give an international context through the medical and social history of polio. If similar resources on this subject are available for the rest of Australia, as Anne Killalea's work on Tasmania suggests they are, there is a profitable field of research yet to be explored which could eventually lead to a general history.

Fear, frustration and the will to overcome, encapsulates the argument of this thesis. The opinion that polio was a disease greatly feared in the community, mostly articulated by experts, has been shown to be true in this case. Beginning with Dudley Snow's assertion that "few diseases are capable of evoking as much human emotion as polio",¹ I have shown that polio attracted a great deal of fear, more than it may have deserved, when compared with other diseases which had far higher mortality rates, such as diphtheria,

¹ Snow, D.R.J. (1981). *Progress*, p.66.

whooping cough, heart disease and cancer. It is evident that the fear of polio was genuinely felt amongst the medical fraternity, and that it was not confined to that group. From an early date, health and medical experts in Australia spoke of polio in language which reflected their fear of the disease, and expressed dismay that the press drew attention to it in ways that exacerbated that fear in the community. There is evidence that in Western Australia, and New South Wales, health authorities attempted to curb the press in its reporting of polio, in an effort to calm the community down. Such actions have affected the history of polio, and the type story that has survived in the public memory. But during the 1948 epidemic in Western Australia the Public Health Department had to learn a lesson the hard way. Its bumbling manner and its policies of persuasion resulted in being severely criticised. The authorities feared polio itself, and it is clear that they also feared the negative criticism it could bring them from the public realm.

The power of polio to render a child disabled was an important reason it was so feared. Being crippled was associated with being worth less in the economic struggle for life, and it meant that the polio survivor might have to face the prospect of life-long reliance on the state for support. Evidence of stigmatisation and ostracism experienced by polio survivors is a clear sign that disability, and the polio that caused it, was greatly feared in the community. Conversely the strong drive amongst polio survivors to overcome their disability and enter the mainstream, often with the encouragement of their doctors, also demonstrates the presence of

Lack of accurate information about the polio virus, particularly in respect of its means of transmission, was a source of frustration both for health experts and the community. Uncertainty led the Public Health Department to impose a number of protection measures, in the hope of casting the net wide enough to stop the disease. The press and the public viewed the protection policies as inconsistent and contradictory and the nature of the measures themselves contributed to the level of fear and frustration connected with polio. The practice of imposing quarantine restrictions on children while allowing adults to continue to travel and mingle freely was an example of this inconsistency, as was the recommended ban on the congregation of children from different areas, while allowing picture theatres to remain open. These practices helped exaggerate the negative publicity polio received, undermined confidence in the Public Health Department, as shown by the cartoons of Saw and Davies and numerous letters to the papers, and made the public frustrated and anxious. Community response to some of these policies was at times equivocal, but it is evident from the call for bans on children entering WA from interstate, reports of the Swan river being deserted during a summer heat wave, the letters of protest concerning the proposed YAL tour of country districts, and the letter from a mother who complained that a known polio contact should have been prevented from working on her husband's farm, that people earnestly sought to avoid contact with the virus or its potential

carriers and were frustrated by the way the Public Health Department chose to respond to the epidemics. The public debate that occurred in the lead up to the 1954 royal tour to Western Australia revealed that people at all levels of government and community were afraid of the consequences that might result from the gathering of such large crowds, and some called for the tour to be cancelled. Under the circumstances it was a bold act to allow the tour to proceed, but it helped prove a point about the faecal contamination theory of polio transmission. And so strong was the desire to participate in this event, the public willingly conformed to the protocols designed to ensure their own safety and that of the royal couple. Despite the shock of the "Cutter" incident the fact that 97% of Western Australians consented to have their children immunised with Salk vaccine. Nearly all resistance was overcome by a strong level of community acceptance combined with a dread of the alternative.

If health experts were frustrated by the slow progress made in understanding polio and finding a reliable prophylactic, they were less impressed by the level of understanding of the disease abroad in the community, as manifested in the weird and wonderful suggestions members of the public offered them. While the response to these gestures was generally polite, and occasionally some points were taken seriously, at heart they were treated with disdain. The public were trespassing into a world where scientific knowledge had become the technical preserve of an elite caste, and it seems many had not read or understood the information about

polio the experts had provided for them. Occasionally suggestions received a severe rebuff, or were ignored entirely. Hints of how the health experts really felt about them are gained from Snow's outburst against the anti-immunisation movement, and in the curt reply that some of the suggestions received from the Commissioner. Health experts may have felt they kept the public well informed but it is evident from the oral testimonies examined here that ignorance of the facts remained amongst the medical profession as much at the public. And for all their weaknesses, the suggestions offered demonstrate how members of the community continued to be concerned and involved in the search for an answer to polio, and shared the frustration of not knowing what to do for the best.

The will to overcome the ravages of epidemic polio is as noticeable amongst medical and health experts as the remarkable determination to overcome their disabilities is amongst polio survivors. The search for a reliable vaccine is an international story of the will to overcome polio, in which Australians, such as Sir Macfarlane Burnet and Dame Jean Macnamara, have had a significant part to play. The will to overcome polio in Australia is also demonstrated by Bazeley's commitment to learn how to produce Salk safely in this country, and the Commonwealth government's approach to the mass immunisation of the population. These, along with Dudley Snow's careful and ingenious planning, are but a few elements in what was widely touted as the "war against polio". The implementation of the

immunisation campaign, and the high level of public response to it, is another indication that the defeat of polio was something nearly all members of the community were resolved to accomplish. The testimonies of the polio survivors have clearly shown that amongst them there was an intense determination to triumph over the devastating effects of the disease. A similar strong determination can be found in Sister Elizabeth Kenny, whose work was damned by the Australian medical establishment. The heroic representation of polio survivors in the press expressed another side of the will to overcome polio, and gave encouragement through showing some were already winning the battle.

The polio virus has not waged its war through Australian summers since at least 1962 but many people have a polio story to tell. There is a significant number of people who still live with the effects of their contact with polio, as long as sixty years ago. The emergence of Post Polio Syndrome has presented at least two new challenges to be considered. In terms of changes to the present needs of polio survivors it has faced them with important issues to work through as they confront the increased pain, loss of muscle strength and misunderstanding by the medical profession. And, as has been shown here, it has sometimes meant that, for the first time in their lives survivors have had to confront the pain of the original impact of polio, and address the losses it brought, but which have so often been denied or ignored in their drive to live a normal life. As polio survivors affected by PPS are now required to confront some painful changes, so there is a role for historians to

rework and transmit the new history that emerges from this profound jolt to the collective memory.

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ORAL HISTORY INTERVIEW RELEASE FORM

- PROJECT TITLE -

**Fear, Frustration and the will to overcome:
a social history of polio in Western Australia**

by

John H Smith

NAME.....

ADDRESS.....

TELEPHONE.....

I consent to the information that I give relating to my experience of poliomyelitis, in interviews conducted by John Howard Smith for the above project, being used, without personal reference, for the purposes of research and publication.

I understand that the information gained will assist the writing of the history of the polio epidemics in Australia, and especially Western Australia.

I also understand that any part of a research report, which is placed in the Battye Library, or elsewhere, will be lodged there at the discretion of the Doctoral Studies Committee of the Edith Cowan University, and will be placed on restricted access.

Should the process of recollecting my experience of poliomyelitis evoke emotional reactions that need to be addressed, I understand that suitable professional help is available, at my expense, from Susanne Howlett, The Wasley Institute, 563 William St, MT LAWLEY WA 6050, TELEPHONE 328.3300.

SIGNED.....

WITNESSED.....

DATE.....

ORAL HISTORY QUESTIONS

- PROJECT TITLE -

**THE POLIOMYELITIS EPIDEMICS IN AUSTRALIA 1895-1962
with special reference to Western Australia**

by

John H Smith

1. Name
2. Age
3. When did you have polio (When were you associated with polio)?
4. Where did you live at that time?
5. How did you get polio? (How did the member of your family get polio?)
6. Were you hospitalised - at what stage - how many times - for how long?
7. How did having polio affect you (the member of your family) physically?
8. What do you remember feeling about yourself:
 - when you got polio?
 - when you were admitted to hospital?
 - when you were in hospital?
 - when you were discharged?
9. What anxieties/uncertainties do you remember feeling?
10. Once you had polio were certain forms of behaviour expected of you?
11. What do you remember about how others regarded you - did you feel included/excluded?
12. How did having polio affect your relationship - with your father, mother, siblings?

13. How did you having polio affect the way your family understood itself?
14. Did you or your family experience any ostracism because of your polio?
15. What do you remember of how people felt about polio?
16. What myths/legends/traditions do you remember were associated with polio?
17. Was information about polio readily available?
18. What precautions or practices were recommended as safeguards?
19. What forms of help or support were available?
20. How have you been able to make sense of your experiences?
