

### 3 Unlikely Allies

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On the evening of 13 July 1957 a Swiss aeroplane, manned by a West German pilot, appeared above the skies of Budapest airport.<sup>1</sup> A prestigious group, including leading state officials and party members of the People's Republic of Hungary, greeted the tall, black-haired man as he descended from the cockpit. The Communist Party official shook his hand in the name of all Hungarian mothers, while experts from the Health Ministry and the State Hygienic Institute inspected the precious cargo: a long-awaited shipment of the Salk vaccine.<sup>2</sup>

Jonas Salk's inactivated vaccine was licensed two years before, in 1955 in the United States. This vaccine, administered as an injection, contained killed poliovirus strains that would provide immunity from paralytic poliomyelitis. The Salk vaccine became an important milestone in twentieth-century medicine. Its development within the March of Dimes movement, the role of the National Foundation for Infantile Paralysis in funding research and the orchestration of the exceptional field trial of the vaccine involving over 600,000 children have been the focus of many heroic and critical accounts.<sup>3</sup> Yet important stories about the Salk vaccine that reach beyond the 'American Story' are yet to be told. Polio represented a threat to societies all over the world and the news of an effective prevention spread fast. Just like the disease itself, the Salk vaccine transcended national and political boundaries with relative ease and soon became widely used on a global scale. As such, it made its way across the Iron Curtain as well.

<sup>1</sup> Part of the research and argument presented in chapters 3 and 5 was published in Vargha, Dora, 'Between East and West: Polio Vaccination Across the Iron Curtain in Cold War Hungary', *Bulletin of the History of Medicine* 88, no. 2 (2014): 319–342

<sup>2</sup> 'Szülők, Vigyázzatok!' (Hungary: Health Ministry, 1957); 'Július 18. És 19-én Megkezdődik a Gyermekbénulás Elleni Védőoltás. Az Egészségügyi Minisztérium Hivatalos Tájékoztatója', *Népkarat*, 14 July 1957.

<sup>3</sup> See for instance Paul, *A History of Poliomyelitis*; Jane S. Smith, *Patenting the Sun: Polio and the Salk Vaccine* (New York: Morrow, 1990); Nina Golden Seavey, Jane S. Smith and Paul Wagner, *A Paralyzing Fear: The Triumph over Polio in America*, 1st ed. (New York: TV Books, 1998); Jeffrey Kluger, *Splendid Solution: Jonas Salk and the Conquest of Polio* (New York: G. P. Putnam's Sons, 2004); David M. Oshinsky, *Polio: An American Story* (Oxford and New York: Oxford University Press, 2005).

The Salk vaccine, whose first arrival was dramatically depicted in news broadcasts,<sup>4</sup> took a complicated route to Hungary. The vials of vaccine were developed in the United States and manufactured in and shipped from Canada; they then travelled to Amsterdam, where a West German pilot in a Swiss aeroplane picked it up and flew with it over the Iron Curtain, arriving in Budapest.

The West German pilot, who was immediately declared a national hero for volunteering for the job on his day off, had to return to Amsterdam soon after the boxes of Salk vaccine were unloaded and inspected by delegates from the Health Ministry. Had he been able to spend a few days in Hungary, he would have seen a country recuperating from one crisis and entering another one. Merely half a year had passed since Russian tanks had rolled along the streets of Budapest as the capital staged desperate battles in the revolution against the communist regime in the autumn of 1956. The new Kádár government had just started showing its teeth. The executions of those whom they had begun calling ‘counter-revolutionaries’ had started in early spring. Out of the total of 229 people executed as a retribution for the revolution between 1956 and 1961, 38 were killed by mid-1957.<sup>5</sup> Still, the country was slowly recovering from a complete standstill, restoring public transportation, removing rubble, moving on. The polio hospital founded by the revolutionary prime minister, Imre Nagy, who was soon to be imprisoned and executed, was up and running, if on meagre resources.

It was into this social and political environment that the most severe polio epidemic in Hungarian history made an entrance in the early summer of 1957. By October, nearly 2,300 children were paralysed by the disease, constituting a 23 per 100,000 incidence rate, one of the highest in Europe. The stakes were thus high: the new, post-revolutionary government was faced with a crisis of another kind and needed to show power and efficiency in providing an answer to the epidemic challenge.

### Bringing the Salk Vaccine Home

As the stories of the polio hospital and flying iron lung show, the 1956 uprising opened up opportunities that revolutionised polio care itself. When it came to polio prevention, however, the chaos and destruction that the fighting left behind hindered efforts, rather than moving them forward. In the end, the revolution and the effect it had on the social and political

<sup>4</sup> ‘Szülők, vigyázzatok!’ (Hungary: Health Ministry, 1957).

<sup>5</sup> Attila Szokolai, ‘Az 1956-os Magyar Forradalmat Követő Politikai Megtorlás Áldozatainak Hivatalos Névsora’, *Beszélő* 6, no. 24 (1994).

structure played an important part in the way subsequent polio vaccination strategies played out in Hungary.

Before mass vaccination became available, the use of gamma globulin was seen as the most effective, although imperfect, prophylactic technology. Gamma globulin is a part of the human blood that is rich in antibodies and therefore can be used to boost a person's immune system. In the 1950s, it was used in the form of injections derived from blood plasma, to build passive immunity against a number of diseases, like hepatitis and measles. In the early 1950s several trials explored the effectiveness of gamma globulin in polio control in the United States, although the trials proved to be inconclusive.<sup>6</sup> Since it was made from human blood, the serum was not readily available and its efficiency was debated in Hungary. The Health Ministry considered it to be an efficient way to curb both poliomyelitis and measles, and since 1954 had used the serum to provide protection in nurseries and kindergartens in which they registered polio.<sup>7</sup> In the early weeks of the outbreak of 1957, the International Committee of the Red Cross transferred 'a quantity of gamma globulin' to the Hungarian Red Cross to help curb the disease.<sup>8</sup>

A report by the Medical Research Council (*Egészségügyi Tudományos Tanács*)<sup>9</sup> in 1956, however, pointed out that according to its recommendation, gamma globulin was ineffective against polio and should be used only in measles and hepatitis prevention.<sup>10</sup> Indeed, contemporary international medical literature argued<sup>11</sup> that gamma globulin gave protection for a limited time only and was only effective if administered just days or weeks before exposure

<sup>6</sup> Stephen E. Mawdsley, *Selling Science: Polio and the Promise of Gamma Globulin*, ed. Rima D. Apple and Janet Golden, Critical Issues in Health and Medicine (New Brunswick, NJ: Rutgers University Press, 2016).

<sup>7</sup> Egészségügyi Minisztérium. 'Jelentés a Politikai Bizottsághoz Az Ország Közegészségügyi És Járványügyi Helyzetéről.' Budapest: Magyar Országos Levéltár, XIX-C-2-m, 115/1954, 1954, and Miklós Dr. Drexler. 'Gyermekbénulás Elleni Védekezés.' Budapest: National Archives of Hungary, Drexler Miklós egészségügyi miniszter iratai, XIX-C-2-n, 369/1956, 18 August 1956.

<sup>8</sup> 'Poliomyelitis. Papers Presented at the Fourth International Poliomyelitis Conference' (paper presented at the Fourth International Poliomyelitis Conference, Geneva, 1957), 6.

<sup>9</sup> The Medical Research Council was established in 1951 by the Ministerial Council, as a consulting body to the Health Ministry. Its task was to recommend or provide an opinion on issues of medical theory and practice. The Medical Research Council, comprised of twenty members, also directed medical research in Hungary (it shared this responsibility with the National Academy of Sciences). György Dr. Gál, László Dr. Medve, and Dr. Rák Kálmán, 'Az ETT Története', *Egészségügyi Tudományos Tanács*.

<sup>10</sup> 'Házi Feljegyzés.' Budapest: National Archives of Hungary, Zsoldos Sándor egészségügyi miniszter iratai, XIX-C-2-m, 821/v/1-16, 6 July 1956.

<sup>11</sup> Since scientists commissioned by the Health Ministry took part in international conferences regularly and had access to major international journals, they presumably had knowledge of major research findings on gamma globulin, such as W. McD. Hammon, L. L. Coriell, and P. F. Wehrle, 'Evaluation of Red Cross Gamma Globulin as a Prophylactic Agent for Poliomyelitis. IV. Final Report of Results Based on Clinical Diagnoses', *Journal of the American Medical Association* 151, no. 11 (1953): 1272-85.

to poliovirus. This was, given the difficulties in polio diagnosis, impossible to do on a large scale. In any case, the quantity of available gamma globulin was limited, since it was produced from human blood. For this reason, it was not seen as a viable solution, especially since it had to be divided for measles and hepatitis prevention.<sup>12</sup>

Prevention strategies involving technologies, such as the gamma globulin serum, reveal conflicting evaluations among the medical community and the political leadership. While the serum did not promise effective protection against polio, its risks were not considered substantial. However, the use of the serum could compromise prophylaxis against other diseases. This shows a prioritisation from the state: it considered the potential, limited effect of this particular technology in the prevention of polio to be more important than other, also common, childhood diseases. Thus, despite the conflicting views on efficiency and the limited availability of the serum, gamma globulin was officially considered to be one of several prophylactic tools that the state employed to protect its children from polio.<sup>13</sup>

However, it seems that the limited availability of the serum was sometimes paired with confused perceptions of its usage.

Soon after my son was diagnosed with polio in 1954, a big black car stopped in front of our house. Suddenly chills ran down my spine. The big black car usually meant that the political police was coming to take someone away. They knocked on our door and we opened it, trying to be as calm as possible. Two *ávós*<sup>14</sup> came in. They said that they heard that our son got polio, so they brought gamma globulin for him, hoping that it might help. This was very difficult to get at the time, but I guess they had special reserves. We thanked them and gave Gyuri the serum, but, of course, it was already too late for that. We wondered how they knew that our son was sick and why they wanted to help. My husband was a quite influential figure. He was the district vet in a rural area,

<sup>12</sup> To achieve protection against polio for 3 weeks, 0.3 ml per kg in bodyweight had to be administered – which would mean about 3–6 ml per child in a *crèche* (*bölcsőde*). According to a report from 1956, the widespread application of the serum is not possible because the total amount of available gamma globulin per month is 8,000 ml, and has to be divided among measles and hepatitis as well. József Román, 'Gyermekbénulás Elleni Védekezés' (Budapest: Egészségügyi Minisztérium, 1956). Even if the government spent all the available serum on polio immunization, it still would have been only enough to provide 1,300–2,600 children with it on a monthly basis, with each dose not even covering a full month.

<sup>13</sup> Passive immunisation practice in the United States was similar, after the gamma globulin field trials in 1951. See 'The Distribution and Use of Gamma Globulin: A Statement Issued April 20, 1953, by the Division of Medical Sciences of the National Research Council', *Public Health Reports* 68, no. 7 (1953): 659–65. Gamma globulin was used up to July 1957 in polio prevention, as new shipments were imported even in the days preceding vaccination with the Salk vaccine. 'A Minisztertanács Intézkedései a Gyermekparalízis Megelőzése és a Betegellátás Érdekében', *Népakarat*, 5 July 1957.

<sup>14</sup> Members of the political police. Although the political police was reorganised and renamed from Államvédelmi Osztály (ÁVO) to Államvédelmi Hatóság (ÁVH), the former name for its members continued to be used in the vernacular.

but he was by no means favoured by the system. They had already confiscated and nationalised his car by that time, for instance. Many years later he found out that his brother-in-law was an agent back then.<sup>15</sup>

While the confusion of treatment and prevention methods in this story highlight the uncertainties and lack of clear-cut ideas in the perception of the disease, the secret police's involvement is telling of the way access to goods, especially medical supplies and care, worked at the time. In a still recovering post-war Hungary, resources for the average citizen were quite scarce. 'I don't think there's a point in talking about poverty. After war displacement, the fronts moving about, we hardly had anything left, but as far as I remember, almost everyone was poor then', recalled one polio patient.<sup>16</sup> Political networks, connections and even key professions could facilitate access to certain goods or services, contributing to an informal economy of favours and exchange. On some occasions, it was these informal avenues of exchange and procurement that gained prevalence, with the blessing of authorities. These private and unofficial ways came forth and were supported by the state when the problem of fulfilling responsibilities, in this case toward the health of children, arose.

In the mid-1950s, a more efficient technology became available: an inactivated vaccine developed by Jonas Salk in the United States, released to the market in 1955. The vaccine contained dead viruses that helped the immune system of the body to develop a defence against the poliomyelitis virus. Salk finished work on the vaccine in 1952 at the University of Pittsburgh, but years of trials were needed before the vaccine could be marketed to the population.

On 25 April 1955, a child previously inoculated with the Salk vaccine was admitted to the hospital with signs of polio. The following day, five similar cases were reported. All of these patients received a vaccine produced by Cutter Laboratories, and on 27 April, the Surgeon General requested that Cutter recall all its vaccines. In the course of the next two months, 94 vaccinated patients, 126 family contacts and 40 community contacts were diagnosed with poliomyelitis<sup>17</sup> in what would be termed the *Cutter incident*. This situation had a tremendous impact: it shook public trust in the vaccine, changed vaccine regulation and control in the United States and ultimately affected the story of another, live, polio vaccine developed by Albert Sabin.<sup>18</sup>

<sup>15</sup> Irén Dr Vargha Jánosné Lázok, interview by Dora Vargha, 24 June 2008.

<sup>16</sup> Éva Paksáné Szentgyörgyi, interview by Dora Vargha, 12 November 2010.

<sup>17</sup> Nathanson and Langmuir, 'The Cutter Incident Poliomyelitis Following Formaldehyde-Inactivated Poliovirus Vaccination in the United States during the Spring of 1955'.

<sup>18</sup> Oshinsky, *Polio: An American Story*; Offit, *The Cutter Incident*; James Colgrove, *State of Immunity: The Politics of Vaccination in Twentieth-Century America* (Berkeley: University of California Press, 2006).

Hungarian newspapers could not let the opportunity of the Cutter incident go by without using it as yet another example of the West's disregard for the well-being and safety of its citizens. In May 1955, the newspaper *Szabad Nép* accused the United States of rushing into the vaccination process without proper testing due to negligence, thereby making children guinea pigs of the free market economy.<sup>19</sup> Incidentally, the Cutter fiasco had the opposite effect in the United States, sparking contradictory criticisms: the American Medical Association (AMA) viewed the mass trials as paving the way for mass vaccinations, which raised fear of the Red Menace in the form of socialised medicine.

Sentiments softened towards the Salk vaccine in Hungary (though not necessarily in the United States) when the renowned Russian virologist Mikhail Chumakov issued a favourable review of the serum, published in Hungary in April 1956.<sup>20</sup> In subsequent years, use of the Salk vaccination spread widely throughout Europe, with Denmark leading the way by immunising its entire endangered population through free vaccination by 1957.<sup>21</sup> The Netherlands started nationwide mass vaccination in 1957, along with Italy,<sup>22</sup> while Britain organised immunisation with the Salk vaccine a year later.<sup>23</sup> Of the Eastern European countries, in 1957, Czechoslovakia and Poland began using the Salk vaccination with a domestically produced vaccine.<sup>24</sup>

Plans to produce the Salk vaccine in Hungary started to form in June 1956, a year after it was introduced in the United States. In a report to the Ministerial Council, the Health Ministry deemed the production of the Salk vaccine 'extremely complicated and expensive'.<sup>25</sup> Among the problems, the report pointed out, were inadequate laboratories. The virus department of the State Hygienic Institute shared a building that had recently kept animals, and the Humán Vaccine Production and Research Institute was housed in a desolate space that did not permit expansion beyond the production of typhus and

<sup>19</sup> 'Halálos Áldozata Van az Amerikában Felfedezett Gyermekparalízis Elleni Védőoltásnak', *Szabad Nép*, 1 May 1955.

<sup>20</sup> Cited in Radio Free Europe. 'Polio in Hungary: Background Report.' Budapest: Open Society Archives, RFE News & Information Service – Evaluation & Research Section, 1957.

<sup>21</sup> Dr. E. Juel Henningsen, 'Poliovaccination in Denmark' (paper presented at the VIth Symposium of the European Association of Poliomyelitis, Munich, 7–9 September 1959).

<sup>22</sup> Crovari, 'History of Polio Vaccination in Italy'.

<sup>23</sup> Lindner and Blume, 'Vaccine Innovation and Adoption: Polio Vaccines in the UK, the Netherlands and West Germany, 1955–1965'.

<sup>24</sup> 'Poliomyelitis. Papers Presented at the Fourth International Poliomyelitis Conference', *Fourth International Poliomyelitis Conference* (1957).

<sup>25</sup> József Román. 'Gyermekbénulás Elleni Védekezés.' Budapest: National Archives of Hungary, Az Egészségügyi Minisztérium Iratai, XIX-C-n, 369/1956, 1956.

smallpox vaccines. Furthermore, a staff of 20 would have to be trained to handle such duties as caring for laboratory primates and to serve as lab technicians and scientists.<sup>26</sup>

A loan from the International Committee of the Red Cross was to be used for the developments needed for vaccine production, which included the establishment and building of a new institution in the SHI. The Health Ministry wished to speed up the decision-making process, given that even with the loan, it would take three years to build the required facilities.<sup>27</sup> In a newspaper interview in late summer 1956, however, the ministry unveiled plans to begin production as soon as the next year, pending the results of a study trip of experts to Western Europe.<sup>28</sup>

Before the Health Ministry would take a stand on the question of polio vaccine production, they stressed the urgent need for a study trip abroad to explore the details and to attain sufficient training in the process.<sup>29</sup> The destination would be Denmark, a European centre for polio research, where Polish colleagues also received their training in Salk vaccine production.<sup>30</sup> In addition to sending two virologists (Dr Elek Farkas and Dr Sándor Koch) to Copenhagen, the ministry also recommended sending the director of SHI to gain experience in organising the logistics of production and two directors from Humán to study the control procedures.

It is not clear why the Health Ministry assigned such importance to the research trip when it was already apparent from the outset that few of the necessary conditions for the production of the Salk vaccine could be fulfilled without significant investment. Of course, pushing for a larger scientific envoy could have originated from personal reasons – a chance to enjoy ‘the West’, and to build professional and personal connections. But there is also the possibility that the Health Ministry perceived that such a huge investment was indeed a realistic option for the government, in order to curb the crippling disease and dependency on the West all at once.

In the end, only one person joined the scientists: Dr Gábor Veres, director of the Humán Vaccine Production and Research Institute. The three delegates

<sup>26</sup> Ibid.

<sup>27</sup> Aladár Kátay. ‘Polio-Vaccina Termelése,’ Budapest: National Archives of Hungary, Dr. Vilmon Gyula Egészségügyi Miniszter Iratai, XIX-C-2-e, 50.654/1957, 1957.

<sup>28</sup> ‘Nincs Gyermekbénulási Járvány: Hogyan Védekezzünk a Megbetegedések Ellen? Mikorra Várható a Hazai Oltóanyagok Termelése? Beszélgetés Az Egészségügyi Minisztérium Vezetőivel’, *Szabad Nép*, 1956, 4.

<sup>29</sup> Román, ‘Gyermekbénulás Elleni Védekezés’, 1956.

<sup>30</sup> Arvid Wallgren. ‘Some Observations Made during a Short Visit to Poland.’ Geneva: World Health Organization, Reports on Maternal and Child Health (MCH) Conditions – Poland, M3–418-2POL JKT 1, 1957.

spent over a month in Denmark,<sup>31</sup> studying vaccine production and the process of vaccination. They also presented their own virus research work and reported intensive interest from Danish scientists, who requested written papers as well.<sup>32</sup>

The delegation decided to head back to Hungary earlier than originally planned, but were held up in Vienna for a week and arrived back in Budapest after the military victory of the Soviet Union on 14 November.<sup>33</sup> It is possible that they waited in Austria to see how the revolution would unfold before re-entering the country. Not surprisingly, the reasons for an almost fortnight-long trip back from Denmark were not detailed in the official documents submitted to the ministry.

The question, of course, arises: why did the scientists come back to Hungary at all? A significant number of medical professionals left the country during the revolution, creating an obvious deficiency in doctors. A year later, the Health Ministry publically called on them to return without any risk of retaliation and offered to help them find work again.<sup>34</sup> In an interview from 2006, Koch says that he thought a Hungarian's place was in Hungary.

The truth is that if you wanted to work, you could, even in that political system. Of course, there was not as much money and recognition as abroad. So I worked, I published a lot in journals abroad, I sometimes travelled and was okay ... I was at home ...<sup>35</sup>

This experience is similar to that of the paediatrician Domokos Boda. After a Swiss conference and study trip he took in 1954, he recounted feeling 'that there was a point to all the work. What's more, you could conduct successful

<sup>31</sup> It is not easy to see how the scientific innovation and travels of Hungarian doctors fits into an overall view of Eastern European Cold War interactions, for literature on Eastern European history of medicine and health is scarce. Lily M. Hoffman's article, Hoffman, 'Professional Autonomy Reconsidered: The Case of Czech Medicine under State Socialism', tells us that Czechoslovak doctors' opportunities were much more limited than their Hungarian colleagues in this respect, which may as well be, but at the same time, Czechoslovakia was one of the very first countries in the world to conduct mass polio vaccination with the Sabin vaccine in the late 1950s. Taking into account the Hungarian case, together with the much-debated cooperation of the USA and the USSR in polio prevention, it is safe to say that the debilitating child disease did create a space that sometimes overrode political rhetoric and action. The fight against polio, in a schizophrenic way, was also an avenue in which individual nationalist agendas and Cold War aspirations could be played out.

<sup>32</sup> Sándor Koch, Gábor Veres, and Elek Farkas. 'Jelentés a Koppenhágai Tanulmányútról.' Budapest: MOL Egészségügyi Minisztérium iratai, XIX-C-2-e, 50.911, 821/4/Virus/1957, 1957, 1.

<sup>33</sup> Ibid. 2.

<sup>34</sup> 'Két Érdekes Előadással Kezdődött Meg a Balatonfüredi Orvoskongresszus', *Népakarat*, 27 September 1957. There is another explanation, though, for this open call – this was a strategy of the state to lure home and incarcerate revolutionaries.

<sup>35</sup> Károly Mezei, '... Isten Van, Az Ember Történi.' Koch Sándor *Virologussal Beszélget Mezei Károly, Miért Hiszek?* (Budapest: Kairosz Kiadó, 2006).



research on an international level among the circumstances at home.<sup>36</sup> Apart from the Danish trip, Koch had several occasions on which to revisit his commitment to staying in Hungary. Koch was thus not alone in remaining and working in Hungary out of a more or less free choice. In 1961, he spent a year working with Nobel Laureate André Lwoff in Paris at the Pasteur Institute.<sup>37</sup>

The revolution, as in so many areas of life, had effects on the polio epidemic in Hungary. In the middle of the fight, surprisingly, a window opened that facilitated polio treatment with the establishment of a polio hospital by Imre Nagy. At the same time, it significantly hindered polio prevention. Plans for Hungarian vaccine production stopped short in October 1956, only to regain some momentum in January 1957. However, the introduction of the Hungarian Salk vaccine would face one obstacle after another. A detailed look at the eventual failure of Salk vaccine production shows that while the revolution did indeed affect the way the history of polio unfolded in Hungary, there is something inherent in communist governmental practice that played a much larger role. The story of the Salk vaccine provides yet another example of the fragmented way in which the state operated in the communist era, the ways that ineffective ministries could not elicit action from multiple key actors in the process and the way that whole policies and important developments could be buried in bureaucratic labyrinths.

First of all, obtaining the report about the Copenhagen experiences ran into serious problems. What seemed to be a crucial element in the plan for vaccine production in June 1956 turned out to be a major hindrance in the spring of 1957. In February, the document was still not prepared.<sup>38</sup> Nearly four months had passed since the research and study trip and the Health Ministry was growing impatient. Following several requests, the report finally arrived at the ministry on 27 March 1957, signed by the three members of the delegation. The twenty-page document gave a brief account of the trip and detailed the steps necessary to start vaccine production. At the time of the report submission, there was disagreement among the three authors about the buildings needed to house the laboratories, and Veres promised a separate report due in April to detail his opinion. In May, the ministry was still waiting for the document,<sup>39</sup> unable to move forward, stranded in the planning process that had now spanned a whole year without any concrete results.

<sup>36</sup> Boda, *Sorsfordulók*, 57.

<sup>37</sup> Mezei, '... Isten Van, Az Ember Történi.' *Koch Sándor Viroológussal Beszélget Mezei Károly*.

<sup>38</sup> Aladár Kátay, 'A Humán Intézet Vírus Osztályának Átköltözése Az Oki-Ba', Budapest: MOL, Egészségügyi Minisztérium iratai, XIX-C-2-e 1957, 50.189/1957, 821/1/Virus/1957. OKI, 1957.

<sup>39</sup> 'Koppenhágai Tanulmányútról Jelentés', Budapest: MOL, Egészségügyi Minisztérium iratai, XIX-C-2-e, 51406, 1957.

After nearly a year, plans for producing a polio vaccine were eventually lost in the attempt to fuse the virus department of SHI with Humán and centralise virus research and vaccine production. 'Domestic production of the Salk vaccine is not possible yet, since there are no facilities that would meet the requirements for production and testing', stated the Health Minister in a newspaper article in late June.<sup>40</sup> The Health Ministry's endeavour to merge the two institutions led to a tense power struggle, leaving a complicated paper trail of complaints infused with vitriolic comments.<sup>41</sup>

The struggle between the SHI, Humán and the Health Ministry points to the larger issue of a dispersed vaccine production and control, a structure that was inherited from the pre-war era and did not quite fit into the centralised notion of a communist healthcare organisation.<sup>42</sup> Humán was initially a department of a private pharmaceutical company, Phylaxia Serum Production Co. Ltd, established in 1924. The company was nationalised in 1948 and smaller vaccine and serum companies merged with it, creating Phylaxia National Serum Production Institute under the auspices of the Ministry of Agriculture. The State Hygienic Institute was established in 1927 with the support of the Rockefeller Foundation.<sup>43</sup> Vaccine production was divided between these two institutions after the war, with Humán producing diphtheria-tetanus-pertussis and smallpox vaccines and SHI producing BCG, rabies and influenza vaccines.<sup>44</sup> The production of this important new vaccine sparked a rivalry among the two, and the Health Ministry was caught in a power struggle that ultimately hindered the introduction of domestic polio vaccine production.

It would take two more years to achieve Salk vaccine production in Hungary. SHI finally won the battle, and the laboratory was completed in August 1958. The 250 litres of the first batch of vaccine produced would be used in July 1959 as the fourth, a booster shot for children who had received all compulsory injections before that time. The SHI planned to produce a maximum of 400 litres per year after that. However, Hungarian production would

<sup>40</sup> 'Az Egészségügyi Minisztérium Tájékoztatója a Gyermekbénulásos Megbetegedésekről és a Védekezés Módjairól', *Népakarat*, 27 June 1957.

<sup>41</sup> 'A Humán Intézet Vírus Osztályának Átköltözése az OKI-ba.' Budapest: MOL, 1957; Benyó, 'A Humán Vírus-Osztály Átvétele. Feljegyzés Dr. Vilmon Miniszterhelyettes Elvtárs Részére', *ibid.* National Archives of Hungary, XIX-C-2-e, 50.654.

<sup>42</sup> Sándor Koch, 'Present Status of Specific Poliomyelitis Prophylaxis in Hungary' (paper presented at the VIth Symposium of the European Association of Poliomyelitis, Munich, 7–9 September 1959).

<sup>43</sup> Gábor Palló, 'Rescue and Cordon Sanitaire: The Rockefeller Foundation in Hungarian Public Health', *Studies in History and Philosophy of Biological and Biomedical Sciences* 31, no. 3 (2000): 433–45.

<sup>44</sup> Lajos dr. Hegedűs, *The History of Human* (Budapest: HUMAN Pharmaceutical Works Co. Ltd., 2003).

still not be able to cover the whole population's needs, as yet another import from the Soviet Union was needed to complement the domestic stock.<sup>45</sup>

In early 1957 the state was still struggling to find an effective way of preventing polio in Hungary. Gamma globulin prevention was costly and its effectiveness was not convincing to the medical community and the public health administration. Domestic vaccine production was stalling, partly because of the long-term effects of October 1956 and partly because the structure of the public health system had not yet crystallised. As the country was recovering from the upheaval of the revolution, concerns about polio prevention remained in the background until a new and powerful epidemic brought about change in the summer of 1957.

### The Unfolding of the 1957 Epidemic

The number of polio cases had been rising since the beginning of 1957. From January onwards, reported polio cases were mostly double – occasionally triple – that of the previous epidemic year, and were up to ten times that of other epidemic years' numbers.<sup>46</sup> Although the statistics of infectious diseases, among them polio, were routinely assembled by the Health Ministry and published in a public health journal every month, the high number of polio cases throughout the year did not stir concern earlier and failed to prompt the government and health authorities to act on disease prevention. The March epidemiology report reveals an explanation for this lack of concern: following the late autumn epidemic of 1956, the high numbers could have been an aftermath, rather than a forewarning.<sup>47</sup> A year later, Dr Otto Rudnai, an epidemiologist in the State Hygienic Institute (Országos Közegészségügyi Intézet, SHI), came to the same conclusion.<sup>48</sup> However, there might be another explanation as to why the government and public health authorities did not devote their full attention to the warning signs. This had to do rather with the aftermath of the 1956 revolution than the outbreak.

The revolution, like any armed conflict, had tremendous effects on public health issues. The consequences of destructive street battles and the absence of

<sup>45</sup> Aladár Kátay, 'Vaccination against Poliomyelitis in Hungary' (paper presented at the Eighth European Symposium on Poliomyelitis, Prague, 23–26 September 1962), 45.

<sup>46</sup> For instance, according to data provided by the Health Ministry, while in March there were 4 reported cases in 1952, 6 in 1954 and 15 in 1956, 49 people were reported to have contracted polio in 1957. Egészségügyi Minisztérium, 'Az Egészségügyi Minisztérium Tájékoztatója Az Ország 1957. Évi Március Havi Járványügyi Helyzetéről', *Népegészségügy* 38, no. 4 (1957).

<sup>47</sup> *Ibid.*

<sup>48</sup> 'Tájékoztató a Gyermekebénulásos Megbetegedésekről', *Népszabadság*, 27 June 1957; Otto Rudnai, 'Az 1957. Évi Poliomyelitis Járvány. Közlemény Az Országos Közegészségügyi Intézet (Főigazgató: Bakács Tibor Dr.) Járványügyi Osztályáról (Osztályvezető: Petrilla Aladár Dr.)', *Népegészségügy* 39, no. 5–6 (1958): 121–27.

trade, production and transport for weeks, even months, manifested on several levels, from the mundane to the structural. Some hospitals and clinics were badly damaged during the battles in Budapest.<sup>49</sup> By December 1956, even basic hygienic supplies, such as soap, were hard to find.<sup>50</sup> As the country slowly recuperated from the shock of a failed revolution, with the people of Budapest standing in line for aid such as clothes and food and the new government beginning bloody retributions, starting up production and infrastructure and navigating hostile international waters, it seems understandable that the slowly rising numbers of polio cases did not ring alarm bells early on.

Beyond the material challenges to public health caused by the revolution, there is another important aspect of the way such an event could influence actions and concerns over epidemics among the medical community. The ways in which the new Kádár government – seen as traitors by many – publicly grappled with the traumatic shock of the previous year followed a pattern that led from solidarity with the revolutionaries through amnesia to an eventual vilification, labelling October 1956 as a counter-revolution.

The representation of the revolution and its changing political memory trickled down to everyday practices in the management of society, including public health practices and the interpretation of epidemic case numbers. While no records survive that reveal the internal debates about polio epidemic cases in the early months of 1957, the example of measles can give a general idea of the process in which current politics interacted with scientific observations of epidemics. While during and after the revolution polio cases rose to epidemic proportions, another strange thing happened: the number of measles cases plummeted. It was the lack of an epidemic, in this case, that caused concern for public health officials.

The infectious diseases report, intended to be published in the February 1957 edition of the public health journal *Népegészségügy*, addressed this unusual phenomenon and attempted to provide an explanation. The original report argued that schools and kindergartens were closed for a significant time in the autumn and early winter.<sup>51</sup> The school year was disrupted by the revolution, many buildings were damaged or destroyed in armed conflicts, and many, among them teachers and students, fled the country, while others

<sup>49</sup> The teaching hospitals, which served as main healthcare providers, were particularly hard hit in Budapest – Dermatology, Internal Medicine, Surgery, Ophthalmology, Gynaecology. The Bókay children's Hospital was also injured in a fire. 'Van Építőanyag a Kórházak Helyreállításához, Vöröskereszt Táborikonyhák Létesülnek, Szappant, Mosóport, DDT-t Kapnak a Kerületek', *Népakarat*, 1956.

<sup>50</sup> 'Lesz Szappan', *Népakarat*, 1956.

<sup>51</sup> József Takó. 'Az Országos Közegészségügyi Intézet Járványügyi Tájékoztatója 1957. Február Haváról.' Budapest: National Archives of Hungary, Állami közegészségügyi felügyeleti és járványvédelmi főosztály, XIX-C-2-e, 50.189, 1957.

died in shootings or were incarcerated after the revolution was suppressed. This underlying knowledge was, however, deleted from the published version by order of the Health Minister.<sup>52</sup> So thorough was the silencing around the October events that even a seemingly harmless epidemiological observation could not be widely spread. This rare insight into the editing process of the journal suggests that political understandings of epidemics formed the way statistics and epidemic curves were interpreted and that certain scientific explanations of their anomalies could be dismissed based on politically unacceptable reasoning.

Silencing and the disregard of rising polio cases, for whatever reason, could not be long maintained. After the initial hesitation to declare a polio epidemic, by the end of June it was obvious to all that that summer would be different than in previous years. The health minister's polio report on the back page of the newspapers, planted among cinema listings, new inventions and accounts of enthusiastic workers, painted a bleaker and bleaker picture of the epidemic as the weeks passed. Polio had arrived with full force.

The initial response to the unfolding epidemic threat of 1957 reached back to broader and more traditional concepts of disease prevention that put the responsibility of families, in this case parents, at the centre. The effort of constraining the activities and movements of children was aided by guidelines issued by the Health Ministry, but was ultimately the task of parents, mostly mothers. Only when it became clear that the extent of this particular epidemic was unprecedented and that hitherto practised methods were no longer sufficient did responsibilities towards the health of children begin to shift and fluctuate.

Parents followed the unfolding epidemic through the radio and newspapers, from weekly reports that detailed the geographical spread of the disease and the number of people affected.<sup>53</sup> Mothers were called on to take care to wash fruit and vegetables thoroughly and to make sure that children washed their hands before eating.<sup>54</sup> Parents were also advised against letting children engage in excessive exercise like too much walking, intensive swimming or spending too much time in the sun.<sup>55</sup> Children under 3 years old would not be allowed to visit public baths and swimming pools,<sup>56</sup> a regulation that caused

<sup>52</sup> 'Note to the Editor of *Népegészségügy*', *ibid.*

<sup>53</sup> See for instance 'Az Egészségügyi Minisztérium Tájékoztatója a Gyermekbénulásos Megbetegedésekről És a Védekezés Módjairól', *Népakarat*, 1957. 'Az Egészségügyi Minisztérium Heti Tájékoztatója a Gyermekbénulásos Megbetegedésekről', *Népakarat*, 11 July 1957.

<sup>54</sup> 'Budapest Vezető Főorvosának Felhívása a Háziasszonyokhoz', *Népakarat*, no. 136, 13 June 1957, 1.

<sup>55</sup> 'Az Egészségügyi Minisztérium Tájékoztatója a Gyermekbénulásos Megbetegedésekről és a Védekezés Módjairól', *Népakarat*, no. 148, 27 June 1957, 3.

<sup>56</sup> 'Budapesten Nincsen Gyermekbénulási Járvány', *Népakarat*, no. 149, 28 June 1957, 1.

much suffering in the scorching summer heat. In order to preserve the cleanliness of baths and thereby curb the spread of infectious diseases, admittance into baths and open-air pools was limited. Moreover, not only the number of people but also the amount of time they spent at such facilities was capped through the issue of morning and afternoon instead of full-day tickets.<sup>57</sup>

At the onset of the epidemic, the Health Ministry released several films with imposing titles, which were shown in cinemas across the country. Since television broadcasting had started only a couple of months before<sup>58</sup> and its subscribers were scarce,<sup>59</sup> such propaganda films, shown in the news section in film houses, were one of the most effective ways for the government to reach the masses directly. The short film *Beware! (Vigyázz!)*<sup>60</sup> stressed the importance of personal hygiene and cleanliness of the home in polio prevention. Parents were advised not to let their children spend too much time in the sun, swim or exercise excessively. For instance, a bicycle tour could expose the tired body to contagion. The film also instructed parents what to do if they noticed that their child had a poor appetite or fever. A doctor had to be summoned immediately, and if it was polio, ambulances were to take the sick child to hospital no matter where they were in the country. The film also boasted that an aeroplane had recently been put into use to carry critical polio cases to hospital.

The state's preoccupation with cleanliness was not new. Silent propaganda films on contagious disease prevention from the interwar period operated with identical imagery and conveyed the same message as their 1950s counterparts.<sup>61</sup> Health and hygiene had long been considered fundamental in preserving political stability. Foucault argues that connecting physical and moral health with social order stemmed from the seventeenth century, as perception of death changed and power was increasingly 'situated and exercised at the level of life, the species, the race, and the large-scale phenomena of population'.<sup>62</sup> Public health practices and housing were (and are) tools through which populations were regulated. With the rise of germ theory and new directions in medicine developed in the 1870s and 1880s by scientists Louis Pasteur and

<sup>57</sup> 'Budapesten Nincsen Gyermekbénulási Járvány – Mondja a Tisztifőorvos. Egészségügyi Okokból Korlátozzák a Fővárosi Strandok Látogatását', *ibid.*

<sup>58</sup> Experimental broadcasting began on 23 February and broadcast available to the public began with the May Day celebrations on 1 May 1957. In: *A Magyar Televízió Története* (Szekszárd: Babits Kiadó, 1996–2000).

<sup>59</sup> According to 1958 figures, there were 16,038 television subscribers in the whole country a year after the broadcast started, while at the same time a total of 4,569 film theatres operated, reaching a much wider public for years to come. *Ibid.*

<sup>60</sup> 'Vigyázz!', Health Ministry, Hungary, 1957.

<sup>61</sup> 'Védekezzünk a Fertőző Betegségek Ellen', Hungary, n.d. [1920s].

<sup>62</sup> Michel Foucault, *The History of Sexuality: An Introduction*, 1st edn (New York: Vintage Books, 1980), 137.

Robert Koch, scientific approaches to power and population gained new momentum. Thus, by the twentieth century, a germ-free, clean and organised home became central, both as a reality and a metaphor, to a strong and successful state.

This new obsession with cleanliness in the everyday perception of diseases and health<sup>63</sup> prompted researchers as well as the lay public to make a profound connection between filth and disease. However, polio defied this association. As early as the 1916 New York epidemic, evidence suggested that polio tended to attack healthy, well-nourished children in affluent homes with good sanitation instead of impoverished households and filthy neighbourhoods.<sup>64</sup>

Since in epidemic proportions polio was a relatively new disease, scientific uncertainties regarding the mode of contagion lingered. One of these theories emerged in the transitional moment of reconciling the ‘filth theory of disease’, which sought to resolve epidemics with sanitary solutions, and the relatively new, but less visible, germ theory. The answer was that insects, as with malaria, transmitted polio. The main culprit became the housefly.<sup>65</sup> Dirt needed to be thoroughly purged in order to prevent germs from infecting the family.<sup>66</sup> Even as experience seemed to contradict the filth theory and new epidemiological thinking gained momentum, ridding households of flies, washing fruit and emphasising the cleanliness of the home continued to be a major part of prevention efforts well into the 1950s in many parts of the world.

Soviet ideals of hygiene followed the well-trodden path, arguing that clean living and working environments were crucial to preserving health. Tricia Starks argues,

Soviet hygienists associated mental acuity, political orthodoxy, and modernity with lives lived according to the concepts of balance and reason. These presumed benefits from a regulated, hygienic lifestyle informed medical inquiry, education and state programs. Soviet hygienists believed that ordered lives produced healthy bodies and politically enlightened, productive and happy populations; strong bodies generated balanced minds that, in turn, choose the most rational, equitable, and inevitable of political, social and economic structures, namely, socialism.<sup>67</sup>

These ideals were transferred to Eastern European public health perceptions,<sup>68</sup> giving a new incentive to essentially the same hygienic goals as in the era preceding the Second World War.

<sup>63</sup> Tomes, *The Gospel of Germs*. <sup>64</sup> Rogers, *Dirt and Disease*, 161–63. <sup>65</sup> *Ibid.*, 16–19.

<sup>66</sup> Poverty and dirt were considered to be the hotbeds of the 1916 polio epidemic in New York City, which was blamed on the immigrant population living in tenements. See Oshinsky, *Polio: An American Story*; Offit, *The Cutter Incident*.

<sup>67</sup> Tricia Starks, *The Body Soviet: Propaganda, Hygiene and the Revolutionary State* (Madison: University of Wisconsin Press, 2008), 4.

<sup>68</sup> As an explanation for such a continuity, Bradley Matthys Moore argues that Czechoslovak public health officials and medical professionals were ready to take up the Soviet perception of hygiene without coercion, partly because celebrated Czech medical figures, such as Jan

In both pre and post-Second World War Hungarian public health propaganda, maintaining a clean house, free of flies, and keeping an eye on the personal hygiene of children was the duty of mothers. The feminine tasks of controlling and maintaining the hygiene of spaces and people continued to be important in the preventive efforts of the 1957 polio epidemic. A newspaper article on polio prevention across the country attests to the assignment of hygienic practices and disease prevention, stating that ‘women of the Red Cross are inspecting the baths and markets of Szolnok, and they are warning mothers to avoid busy areas with their children’.<sup>69</sup>

Children thus needed to be protected from polio outside the home as well as within it, and special attention was to be paid to children’s communities. Summer was a time of organised holidays for children. City councils and the national and local organisations of trade unions offered mass holidaymaking for schoolchildren at Lake Balaton, various locations in hills, near thermal baths and even in the capital. The pioneer movement also organised summer camps. The subsidised or free vacations lasted two weeks, providing care for over 200,000 children per summer.<sup>70</sup> These holidays were not only an opportunity for families of lesser means to secure childcare and a summer experience for their children; they were also ideal grounds for any epidemic to spread quickly.

The same weekly newspaper reports that detailed the geographical spread of the disease and the number of people affected gave notification of bans on the public travel of children. The only way that children could take part in summer camps, organised hikes and group vacations was if they carried a medical document proving that there were no reported cases of polio among their family members or in their immediate environment.<sup>71</sup> As the disease spread, a complete ban on organised travel for children under 14 years old to and from certain areas and cities, such as the especially hard-hit Borsod, Abauj-Zemplén and Hajdu, as well as the cities of Miskolc and Nyíregyháza, was imposed.<sup>72</sup>

Purkyne, fit easily within a broad understanding of Pavlovian physiology. Bradley Matthys Moore, ‘For the People’s Health: Ideology, Medical Authority and Hygienic Science in Communist Czechoslovakia’, *Social History of Medicine*, 27 no. 1 (2014): 122–43.

<sup>69</sup> ‘Országsszerte Hathatós Intézkedésekkel Küzdenek a Gyermekbénulás További Terjedésének Megakadályozásáért’, *Népakarat*, 29 June 1957.

<sup>70</sup> V.M., ‘Harmincezer Iskolásgyermeket Üdültet a SZOT, Kétszáz ezer Gyerek Megy Úttörőtáborba’, *Népszava*, 4 June 1959.

<sup>71</sup> ‘Az Ifjúság Csoportos Nyaraltatásának Egészségügyi Szabályai’, *Népakarat*, 2 July 1957. Also see *A Magyar Forradalmi Munkás-Paraszt Kormány 1027/1958 (VIII. 3.) Számú Határozata a Gyermekbénulás Elleni Védekezéséről* (1958).

<sup>72</sup> ‘Az Egészségügyi Minisztérium Heti Tájékoztatója a Gyermekbénulásos Megbetegedésekről’, *Népakarat*, no. 172, 25 July 1957, 1.



The geography of the banned areas kept changing over time, as it followed the disease.

Such regulations were not necessarily successful. Some children still travelled with their parents, which perhaps contributed to their contracting the disease,<sup>73</sup> while others remained in their isolated villages and were the only ones to come down with polio in their communities.<sup>74</sup> Many times the ban on travel was impossible to impose, and occasionally it was the ban itself that led to new cases when healthy children became trapped in epidemic centres. In late June 1957, Éva, then 6 years old, travelled from the westernmost part of the country to the East with her parents for her grandparents' 40th wedding anniversary. It was only when they were already approaching Borsod County that they were warned of a polio epidemic there and were advised by a fellow traveller to turn back immediately. It was too late, though, and upon arrival they were banned from leaving the county for two weeks. As her mother recounts:

It was there that we learned that my niece's classmate died from paralysis in Miskolc. We also learned there that the initial symptoms of polio are like a simple cold. When we got home, my daughter got the cold. Next day she had a fever . . . At the children's hospital they performed a lumbar puncture, which confirmed the positive result. After that, my husband took her to the infectious disease ward, because she could not walk anymore. She was completely paralysed, all her limbs from the neck down.<sup>75</sup>

The dissemination of information on the geographic spread of polio, travel bans and even the nature of the disease itself apparently ran into certain problems. Éva's case was by no means unique.<sup>76</sup> Many times, parents only learnt about the presence of an epidemic in their community when their child became ill.<sup>77</sup> While they could gather information on polio epidemics from the newspapers, radio and popular medical advisory books,<sup>78</sup> this information was often disregarded unless there was an immediate threat.

The responsibility for preserving children's health and keeping them safe from polio was shared between the paternal state and the parents, usually mothers, who were the primary figures of caretaking. Parents would contribute by keeping their household clean and preventing their children from over-exerting themselves, while the state would impose bans and regulations to curb contagion and supply the technologies of prevention.

<sup>73</sup> György Vargha, interview by Dóra Vargha, 15 June 2008, Interview.

<sup>74</sup> Erzsébet Szöllősiné Földesi, interview by Dóra Vargha, 26 April 2010.

<sup>75</sup> Ákosné Szentgyörgyi, interview by Dóra Vargha, 12 November 2010.

<sup>76</sup> see for example Vargha, interview by Vargha, 15 June 2008.

<sup>77</sup> Dr. Vargha Jánosné Lázok, interview by Vargha, 24 June 2008.

<sup>78</sup> e.g. Andor Knoll, *Az Egészséges Gyermek. Nevelési Tanácsok Szülők Részére* (Székesfehérvár: Magyar Vöröskereszt Egészségkultúráls Osztály, 1958).

The domain of responsibilities did not have clear boundaries and shifted back and forth between the state and the parents, between official and private spheres. As these responsibilities shifted in the fight against polio, they created a confusing web of expectations and blame on both sides. The communist state, which so often used the tropes of family in its communications, positioning itself as the *paterfamilias* of the nation,<sup>79</sup> educated its citizens on disease prevention and called on them to join a mutual effort in curbing the epidemic.

Katherine Verdery, based on Romanian experience, identified a familial relationship between the communist state and its subjects, which she termed socialist paternalism. Verdery argued that the state ‘posited a moral tie linking subjects with the state through their right to share in the redistributed social product’.<sup>80</sup> In her observations, in the eyes of the state, subjects are seen as grateful children who appreciate every benefit that the state provides for them.

The Hungarian case follows this pattern, especially when it comes to welfare and healthcare issues. A myriad of newspaper and magazine articles, publications and even governmental documents employ the familial rhetoric, portraying the state as the head of the family, the ultimate provider, and evoking the happiness and gratefulness that was expected from the citizens, especially the mothers, for organised childcare, workplace and public canteens, new healthcare networks and protection from polio in the form of vaccines.

Viewed through the lens of polio, the way the paternalist state worked included interaction between the parent-state (shown as a father) and nuclear families (first represented in this national discourse as mothers and parents, but very rarely fathers). In some instances, the subjects – mothers, parents – were transformed from the state’s children or wards to partners in protecting and providing for the future generation.

### The West German Hero

Though seemingly strong and unified, the nearly bankrupt Hungarian government had difficulties in fulfilling the role it set for itself and did not fall short of transferring its responsibility in disease prevention to parents in times of need or failure. In these exceptional circumstances, private solutions came to the forefront to solve national problems, inverting the usual dynamics. When the efforts to provide failed or were insufficient, a more complicated partnership was called upon, elevating subjects to heads of the nation-family and giving the responsibility for children’s health back to parents, while the state stepped back as a mere facilitator.

<sup>79</sup> See Kligman, *The Politics of Duplicity*.

<sup>80</sup> Verdery, ‘From Parent-State to Family Patriarchs: Gender and Nation in Contemporary Eastern Europe’, 228.

The importance of this web of expectations and the ways in which responsibility was shared, negotiated and occasionally contested among the state, the medical profession and the lay citizens cannot be overstated. The notion of common responsibility for the health of the population and the state's role in providing tools for preserving it was a fundamental element in the concept of public health in the Socialist Bloc. This cornerstone of communist ideology shaped the way in which the epidemic management of polio played out in the region, allowing the Iron Curtain to open and close in striking ways in the process.

The fight against polio created a space in which existing political agendas could be temporarily overwritten. When the state was unable to provide vaccines or its supplies proved to be insufficient, preserving the health of children became a pretext on which the communist government could reach out to unlikely allies. For the sake of children, dissidents could become extended family members.

The promise of a polio-free future arrived on a small aeroplane around 8 p. m. on 13 July 1957. The scene of the vaccine's arrival was captured in a new polio short film: *Parents, be careful!* While the previous film, *Beware!*, concentrated on what parents could do to protect the health of their children, this later movie stressed the actions of the government in polio prevention.

After going through the usual hygienic advices of washing hands and keeping flies at bay, the film went on to provide details of polio care. The representation of therapy at once emphasised the grave consequences of polio (e.g. children 'have to learn to walk all over again') and soothed these images by presenting the high-quality care provided by the state ('highly nutritious, abundant meals contribute to healing in the hospital').<sup>81</sup> The aeroplane arrived at the film's climax, assuring parents that they need not fear this terrible childhood disease any longer, thanks to the government's heroic efforts.

As the number of polio cases grew, it was more and more clear that something drastic needed to be done. The new government, busy with solidifying its power through imprisonment and executions, deemed it necessary to show its strength and ability to tackle public health crises and protect the nation's children. Since domestic production was not possible, especially on such short notice, the government took several steps that, in light of the way we usually think about Cold War politics and communist regimes, may seem surprising. The fact that children were the population group most at risk from polio opened avenues for contradictory actions and rhetorical twists. In a peculiar period of the Cold War, and in a post-revolutionary setting, the state found itself trying to curb the outbreak with the help of strange bedfellows.

<sup>81</sup> 'Szülők, Vigyázzatok!', Health Ministry, Hungary, 1957.

Before the decision was made to import the Salk vaccine, the communist state had encouraged informal ways to ameliorate the unfolding epidemic. On 27 June 1957, Hungarians found the following announcement from the health minister and Dr Aladár Kátay, head of the epidemiology department of the ministry, in the weekly polio report of the party's daily newspaper: 'We inform those who are attempting to acquire Salk vaccine through their family members and acquaintances living abroad that the Health Ministry has contacted Customs and, as a result, they will give priority to sending the packages that arrive from abroad and contain this medicine.'<sup>82</sup>

The policy regarding packages arriving from the West originated in the tumultuous months of the 1956 revolution and its aftermath. Access to vital goods such as medicine was scarce, as buildings and infrastructure were severely damaged and production and trade were recovering slowly after coming to a full stop. Additionally, a good portion of Hungary's population had left the country. In late November, to facilitate aid coming from private persons – and as a supplement to help from international organisations such as the Red Cross – the Kádár government pronounced all packages containing food, clothing and medicine to be duty-free until 1 July 1957.<sup>83</sup>

As the polio epidemic loomed on the horizon, the package policy was widened to include expedited customs control in order to preserve the effectiveness of the delicate vaccines coming in personal packages.<sup>84</sup> Family members and friends had already started sending gift parcels<sup>85</sup> from abroad in March,<sup>86</sup> while some individuals chose to bring back doses personally from official trips to the West to vaccinate their own children and neighbours.<sup>87</sup>

What is remarkable in such a customs policy and the encouragement of personal aid from family members and friends living abroad is that through these announcements the state called on precisely the people it wanted to silence, punish or destroy: 'dissidents', who had left the country at various times since the Second World War because of the communist regime. Most

<sup>82</sup> Dr. Frigyes Doleschall and Dr. Aladár Kátay, 'Tájékoztató a Gyermekbénulásos Megbetegedésekről', *Népszabadság*, 27 June 1957, 8.

<sup>83</sup> 'Terjesszék Ki a Külföldi Ajándécsomagok Vámmentességét', *Népakarat*, 5 December 1956.

<sup>84</sup> 'Ügyészségi Intézkedés a Külföldről Érkező Salk-Szérumról', *Népakarat*, 7 July 1957.

<sup>85</sup> Medical parcels coming from abroad were not isolated incidents peculiar to Hungary alone. A Czechoslovakian RFE report from 1954 writes in detail about foreign medicine parcels and remarks that the health ministry of Czechoslovakia must approve of them reaching their destination. Radio Free Europe, 'Information from Czechoslovakia. How the State Gets Hold of Foreign Drugs', in *Bulletin #625* (Budapest: Open Society Archives, 1954).

<sup>86</sup> Radio Free Europe, 'Polio in Hungary: Background Report', 1.

<sup>87</sup> Erzsébet Kertesí, 19 May 2009.

recently, 200,000 out of the total population of 9 million citizens had left when the revolution was suppressed. About 8,000–10,000 people returned in the early summer of 1957;<sup>88</sup> most emigrants, however, never went back and many spoke out ardently against the Hungarian communist regime.

At the same time, the following was published in one of the major newspapers, *Népszabadság*, penned by the Health Minister, Frigyes Doleschall, and the head of the epidemiology department, Aladár Kátay:

As of now, the Hungarian production of the Salk vaccine (the most effective vaccine against polio known today) is not possible. The Ministry tried last year and earlier this year to procure vaccine that would be enough to immunise five age groups. The hard currency needed for this was available; however, we did not succeed in importing a sufficient amount, since the Salk vaccine is not in stock, and because of its short expiration period, they only make it to order. Furthermore, it is a good drug and it is scarce all across the world. Negotiations are under way and it looks like it will be available early next year.<sup>89</sup>

In this statement, the ministry was clearly invested in explaining away its inability to deliver protection from polio for the population, something that could have been expected in the light of the role the state set for itself and the proclaimed universal healthcare it was theoretically providing. According to the above passage, the efforts were hindered only by outside forces – the specificity of the delicate serum’s production and a market economy of shortage to which Hungarians could easily relate.<sup>90</sup>

It is almost certain, however, that the Health Ministry alone could not have secured the hard currency and procured the vaccine: they needed the Ministerial Council’s decision and approval for an intricate process that would involve the allocation of credit, adjustment of economic plans and mobilisation of foreign trade relations.

Nor was it true that the hard currency had been available for vaccine procurement. In a report submitted to the Ministerial Council, Frigyes Doleschall, the health minister, pointed out, ‘The National Planning Bureau in 1956 was unable to fulfil the Health Ministry’s hard currency need for

<sup>88</sup> A detailed statistical analysis on the subject of emigrants in 1956 acknowledges the difficulty in assessing an exact number of people leaving and returning László Hablicsek, ‘Az 1956-os Kivándorlás Népeségi Hatásai’, *Statistikai Szemle* 85, no. 2 (Illés, Sándor): 157–72, at 159–60.

<sup>89</sup> Doleschall and Kátay, ‘Tájékoztató a Gyermekbénulásos Megbetegedésekről’.

<sup>90</sup> Shortage of polio vaccine in 1957 was not unique to Eastern Europe. Britain similarly experienced lack of access to the vaccine in the face of an epidemic in Coventry. However, as Gareth Millward points out, shortage was seen in this case as a failure of the British government, which was too bureaucratic, of medical experts who were too slow to act, and of experts who did not listen to ‘commonsense’. Gareth Millward, ‘“A Matter of Commonsense”: The Coventry Poliomyelitis Epidemic in 1957 and the British Public’, *Contemporary British History* (2016): 1–23.

importing Salk vaccine this year.<sup>91</sup> Clearly, the Health Ministry alone was too weak to push its agenda through. Something drastic needed to be done, involving the highest level of decision-making, to succeed in importing the vaccine.

A week after notifying the public about the lack of Salk vaccine and the difficulties in securing a shipment, on 4 July 1957 at a meeting of the Ministerial Council on the polio epidemic, Jenő Baczoni, deputy minister of foreign trade, revealed a plan to secure a shipment of the vaccine. He informed the council that they had found a way to import Salk vaccine originating from Canada through Denmark. This quantity would be enough to vaccinate 150,000 children. Furthermore, they had received notice that Czechoslovakia had recently been able to import a larger amount of vaccine, from which they could borrow a portion that they would return once the Danish shipment arrived.<sup>92</sup> It seems that the Czechoslovakian public health management was somewhat better organised than that of the Hungarians. As preparations for local polio vaccine production began in 1956, the atypical epidemic wave in the autumn urged the Czechoslovakian government to change its original plans of starting polio vaccination with a domestic vaccine at the end of 1957. Instead, Czechoslovakia acquired a vaccine from the Canadian Connaught Laboratories and started immunisation in the spring of 1957, before the onset of the epidemic season.<sup>93</sup> In Hungary, as we have seen, the revolution and its consequences temporarily overrode much of the concern regarding polio epidemics and it remained this way until the shock of the new outbreak.

Now that the possibility of mass vaccination was becoming a reality, the Ministerial Council did not hesitate to revoke the generous policy on personal packages containing vaccines coming from the West.

in order to curb hysterical phenomena, the public announcement [regarding polio issues] should include a statement that calls on the population to put a stop to their individual actions, in which they are trying to bring in vaccine through relatives and acquaintances living in Western countries, because the Government provides a sufficient quantity of the vaccine.<sup>94</sup>

<sup>91</sup> Frigyes Doleschall, 'A Járványos Gyermekbénulás Elleni Védekezés Időszerű Feladatai. Előterjesztés a Magyar Forradalmi Munkás-Paraszt Kormányhoz', ed. Minisztertanács (Budapest: National Archives of Hungary, 1957).

<sup>92</sup> 'A Járványos Gyermekbénulás Elleni Védekezés Időszerű Feladatai. Vita', Budapest: National Archives of Hungary, A Minisztertanács üléseinek jegyzőkönyvei, XIX-A-83-a, 1957.

<sup>93</sup> Vilem Skovranek, 'Present State of Vaccination against Poliomyelitis in Czechoslovakia', in *Vaccination and Immunity: Neurophysical and Neuropathological Aspects of Poliomyelitis. Vth Symposium of the European Association against Poliomyelitis*, ed. H. C. A. Lassen (Madrid: Europ. Assoc. Poliomyelitis, 1959).

<sup>94</sup> 'A Járványos Gyermekbénulás Elleni Védekezés Időszerű Feladatai. Vita', 1957.

Regaining provider status and setting up the familial dynamics of the parent-state and child-citizens was so important to the government that even before the state was able to solve vaccination with certainty, the process of reinforcing the lines of responsibility over health protection began.

After a year of going back and forth on domestic vaccine production, the pace clearly quickened. On the same day, the Ministerial Council issued a decree that put forward a comprehensive programme of polio prevention.<sup>95</sup> The council ordered the health minister and the minister of foreign affairs to import sufficient vaccine for the immunisation of children from six months to five years of age. The two ministers were also instructed to import gamma globulin as needed from Czechoslovakia and the GDR. This time, the ministry of finance and the National Planning Bureau received orders from the highest ranks, in the form of a decree to secure sufficient funds and hard currency for vaccine procurement and allow the health minister access to these monies without delay. In the decree, the government also included an official announcement that called on the public to refrain from procuring vaccine by private methods. A summary of the decree was published in the newspapers the very next day,<sup>96</sup> assuring parents that the state was indeed in control again.

Following these initial obstacles,

By a decree of the Ministry Council, through great difficulties, the Salk vaccine has arrived . . . now everyone can have access to it for free. Vaccination has begun with the help of Red Cross activists. Parents, worry no more, now we can protect your children from infant paralysis.<sup>97</sup>

This route of the first official vaccine shipment is symbolic of international cooperation in the struggle against polio. The practical execution of transporting polio vaccines was an enterprise that, in its official rhetoric, challenged Cold War concepts and claimed to override geopolitical tensions in the name of science and for the benefit of children. Moreover, with the arrival of the vaccine, this rhetoric made an appearance in public in Hungary. While the description of international cooperation was carefully embedded in the much more familiar discourse of the paternal state providing for and protecting its subjects, such a carefree and positive tone, completely devoid of attacks on the West, stood out from the everyday articles and newsreels to which most Hungarians were exposed. For the sake of the health of children, instead of an imperialist spy or decadent oppressor, a West German became the celebrated hero of the day. The nameless pilot – referred to as ‘a tall, black-haired

<sup>95</sup> ‘A Magyar Forradalmi Munkás-Paraszt Kormány Határozata a Járványos Gyermekbénulás Elleni Védekezés Időszerű Feladatairól’, in *1062/1957/VII.6./Korm* (1957).

<sup>96</sup> ‘A Minisztertanács Indézkedései a Gyermekparalízis Megelőzése és a Betegellátás Érdekében’, *Népakarat*, 5 July 1957.

<sup>97</sup> ‘Szülők, Vigyázzatok!’, Health Ministry, Hungary, 1957.

man' – said he volunteered for the flight on his day off, when he heard that it was a much-needed shipment of vaccine for the children of Hungary. 'If only everyone was like this', wrote the vice-president of the Presidential Council in the newspaper article covering the arrival of the vaccine.<sup>98</sup> The government considered the vaccine to be so important, and the need to communicate its final success in securing it for the country's children so pressing, that the party newspaper was able to contradict its own rhetoric in depicting this fruitful cooperation.

As the packages of Hungarian émigrés and the romantic story of the West German pilot worthy of Hollywood films attest, preventing polio with the Salk vaccine was an issue that transcended the animosity of international relations and Cold War politics. However, there is another side to the heroic story, one that shows that the Cold War was indeed fought with vaccines as well.

The news of the severe polio epidemic made it into the international press, which in the aftermath of the 1956 revolution was very interested in Hungarian affairs.<sup>99</sup> Interestingly, while Hungarian sources stressed the high cost and debt that the government had taken upon itself to import the vaccine, American newspapers used the term 'aid' when describing the Salk shipment.<sup>100</sup>

An explanation of the difference in the representation of those credited for the Hungarian vaccination can be found in contemporary international politics. In the years following the suppression of the revolution that broke out against the communist regime in October 1956, Hungarian-American diplomatic relations were at a low point. According to the Foreign Ministry, 'Among all capitalist countries . . . relations [were] the worst with the United States.'<sup>101</sup> The conflict between Hungary and the United States was exacerbated by the formation of a United Nations Committee set up to investigate the Soviet intervention and the actions of the Kádár government. The relationship between the two countries turned so icy that the American ambassador, Edward Wailes, was recalled in the spring of 1957 and the embassy in Budapest was left without an ambassador for the next ten years.<sup>102</sup> The United States, therefore, could easily have been invested in portraying the Hungarian government, which the Americans perceived to be borderline illegitimate, as needing outside help, rather than capable of solving its own problems.

<sup>98</sup> Dániel Nagy, '250 000 Köbcentiméter Salk-Vakcina Érkezett. Az Egészségügyi Minisztérium Tájékoztatója', *Népszabadság*, 14 July 1957.

<sup>99</sup> 'Polio Epidemic Feared', *Washington Post and Times Herald*, 5 June 1957; 'Salk Expects End of Polio Some Day', *New York Times*, 9 July 1957; 'Hungary Battle Polio', *Washington Post and Times Herald*, 2 July 1957.

<sup>100</sup> 'World Polio Cut by Salk Vaccine. Hungary Aided in Polio Fight', *New York Times*, 10 July 1957; 'Budapest Receives Canadian Polio Aid', *New York Times*, 14 July 1957.

<sup>101</sup> László Borhi, *Iratok a Magyar-Amerikai Kapcsolatok Történetéhez 1957–1967*, ed. Mária and Vida Ormos, István, *Iratok a Magyar Diplomácia Történetéhez* (Budapest: Ister, 2002).

<sup>102</sup> *Ibid.* 20.



Importing the Salk vaccine from the West was not a unique feature of Hungarian epidemic management in the region. Most Eastern European countries were prompted by sudden or unexpectedly severe outbreaks to act fast and reach across the Iron Curtain to provide a speedy solution in the form of the Salk vaccine. As we have seen, Czechoslovakia followed a similar route in procuring the vaccine from Connaught Laboratories in the spring of 1957. Poland began domestic production in 1957 on a small scale and mass production in the second half of 1958. The vaccination was to be covered partially by a domestic vaccine and partially by imported Salk vaccine.<sup>103</sup> As in many countries, an epidemic served as a motive for the Bulgarian government to introduce mass vaccination into the country in September 1957. Bulgaria used imported vaccine until 1959 (from the American Merck and Connaught Laboratories), when it switched to the Soviet-produced inactivated vaccine.<sup>104</sup> The East German government began vaccination with the inactivated vaccine in 1958, using the so-called 'Berna' vaccine produced by the Swiss Serum and Vaccine Institute in Bern.<sup>105</sup> Instead of using Salk's polio vaccine, Romania began immunisation with a different inactivated vaccine: the recently released Lépine vaccine, developed in France by the physician and biologist Pierre Lépine and manufactured by the Pasteur Institute of Paris.<sup>106</sup>

Relying on vaccine import in polio prevention was not specific to the Eastern European Bloc either. Domestic vaccine production could not always keep up with demand, and it was mostly Canadian and American pharmaceutical companies to which medical boards turned in their goal to immunise a critical portion of the nation. Britain, after much deliberation, imported Canadian and American Salk vaccine in 1958, when domestically produced supplies proved to be insufficient to immunise the endangered population.<sup>107</sup> Similarly, Sweden decided to import vaccine from the American company Eli Lilly and Co. in 1957 to complement its domestic vaccine stock.<sup>108</sup>

<sup>103</sup> F. Przesmycki, 'Vaccination against Poliomyelitis in Poland', in *Vaccination and Immunity: Neurophysical and Neuropathological Aspects of poliomyelitis. Vth Symposium of the European Association against Poliomyelitis*, ed. H. C. A. Lassen (Madrid: Europ. Assoc. Poliomyelitis, 1959), 40–41.

<sup>104</sup> I. Vaptzarov, D. Bratovanov, and Th. Kristev, 'La vaccination contre la poliomyélite en Bulgarie', in *Anti-poliomyelitis vaccinations, physio-pathology of the respiratory disorder, poliomyelitis of the 'very young child'. VIth symposium of the European Association against Poliomyelitis*, ed. H. C. A. Lassen (Munich: Europ. Assoc. Poliomyelitis, 1960), 19–23.

<sup>105</sup> Kukowa, 'Poliomyelitis-Schutzimpfung in Der Deutschen Demokratischen Republik', *ibid.* 52–53.

<sup>106</sup> Anda Baicus, 'History of Polio Vaccination', *World Journal of Virology* 1, no. 4 (2012): 108–14.

<sup>107</sup> Lindner and Blume, 'Vaccine Innovation and Adoption: Polio Vaccines in the UK, the Netherlands and West Germany, 1955–1965'.

<sup>108</sup> Axelsson, 'The Cutter Incident and the Development of a Swedish Polio Vaccine'.

However, the vaccine initially procured by the Hungarian government was still not enough to vaccinate all children. On the day following the breaking news of the vaccine's arrival, the newspaper *Népakarat* suggested that people keep their enthusiasm in check: the shipment of 250,000 cm<sup>3</sup> of Salk vaccine was only enough to vaccinate the most endangered age group of children, those between 1 and 2 years old.<sup>109</sup> A week later, the vaccination was administered in Budapest and eastern Hungary, the areas most hard hit by the disease, while other parts of the country were vaccinated the week after that. The second dose of the vaccine was to be administered four weeks after the first dose.

Since the vaccine was not enough to immunise the whole endangered population, the first shipment was soon followed by smaller donations. The first came from the World Health Organisation (WHO), which sent 40,000 doses.<sup>110</sup> At this time, Hungary's relationship with the WHO was not completely stable. Hungary, along with other Eastern European countries such as Czechoslovakia and Poland, had followed the Soviet Union's example by withdrawing its membership<sup>111</sup> in 1949.<sup>112</sup> However, again following in the footsteps of the Soviet Union, Hungary had started to discuss rejoining the WHO in April 1957.<sup>113</sup> Hungary eventually ended up as the last Eastern European state to renew its membership, in 1963.<sup>114</sup>

Another organisation also made a vaccine donation of an unknown amount, although from Health Ministry documents, it appears that the vaccine might have been damaged during the journey and was most probably not fit for use by the time it arrived. The donation came from the National Organisation of Actio Catholica, headed by Bishop Endrey, who received the shipment from Bern, Switzerland.<sup>115</sup> This was not the first shipment from a Catholic organisation. According to a report by the Katpress Catholic news agency, referenced by the Radio Free Europe report, the Austrian branch of the National Catholic

<sup>109</sup> 'Beoltják Gyermekbénulás Ellen az 1–2 Éves Gyermeket: Külkereskedelmi Szerveink már 250 000 Kőbcenti Vakcinát Szereztek', *Népakarat*, 10 July 1957; 'Gyermekparalízis Elleni Védőoltás Az 1–2 Éves Gyermek Számára', *Népszabadság*, 10 July 1957.

<sup>110</sup> 'Dr. Ivanovics György Akadémikus Nyilatkozata a Genfi Gyermekparalízis-Kongresszusról, a Hazánkban Folytatott Oltások Hatékonyságáról', *Népszabadság*, 23 July 1957.

<sup>111</sup> The constitution of the WHO did not allow for membership withdrawal, therefore these countries were considered inactive members until they activated their membership again. See *The First Ten Years of the World Health Organization*, 80.

<sup>112</sup> *Ibid.* 79–80.

<sup>113</sup> 'Letter from Rodolphe L. Coigney, Director of Liaison Office with United Nations to Dr. P. Dorolle, Deputy Director-General of the World Health Organization.' Geneva: Archives of World Health Organization N52/180/2/Hungary, 1957.

<sup>114</sup> Javed Siddiqi, *World Health and World Politics: The World Health Organization and the UN System* (Columbus: University of South Carolina Press, 1995), 108.

<sup>115</sup> Kátay Aladár, 'Svájci Polio-Vaccina Használhatósága.' Budapest: National Archives of Hungary, 54047, XIX-C-2-e, 1957.

Welfare Council (NCWC) sent 2,000 doses of vaccine to the same bishop.<sup>116</sup> Given that the relationship of the Hungarian communist state and the Catholic Church was at its worst in the 1950s, the existence of such cooperation, reaching over the Iron Curtain, indicates another venue where the apolitical space created by children's health materialised.

### Vaccinating the Nation

The Janus-faced nature of Cold War relations came to light once more in the attempt to secure further large batches of the Salk vaccine. Even while the Hungarian government was so seamlessly working together with the Catholic Church and the WHO in polio prevention, the whole vaccination campaign almost broke down because of Hungary's dire relations with the United States and the poor standing of the Hungarian government in the scene of Cold War international politics.

The arrival of a second large 500,000 cm<sup>3</sup> batch of Salk vaccine was very far from heroic and revealed vaccine procurement as a politically fraught process. The rhetoric on aid to Hungary continued when the Hungarian government began negotiations to procure further batches of Salk vaccine from American manufacturers. It was significantly cheaper to purchase the vaccine from the United States than from Canada, so Hungary decided to step on the minefield of severed diplomatic relations and pursue the procurement from the United States.<sup>117</sup> The Hungarian diplomats involved in the process were appalled by the representation of aid and benevolence from the American parties. According to the internal notes of the Hungarian Foreign Ministry, Garret G. Ackerson, the temporary chargé d'affaires of the United States Embassy in Budapest,<sup>118</sup> met with Hungarian colleagues to discuss the possibility of Salk vaccine procurement. In the interpretation of the Hungarians, Ackerson offered help to the Hungarian government in purchasing Salk vaccine from American companies, but when pressed for the exact nature of this help, evaded any particulars. The Hungarians informed him that they had already managed to negotiate a further 500,000 cm<sup>3</sup> of vaccine on their own, and while grateful for

<sup>116</sup> Radio Free Europe. 'Polio in Hungary: Background Report.' Budapest: Open Society Archives, 1957, 2.

<sup>117</sup> Jenő Baczoni, 'Levél Sebes István Elvtársnak, a Külügyminiszter Helyettesének.' Budapest: Magyar Nemzeti Levéltár, XIX-J-1-k USA Admin 1945–1964, 57, A Salk szérum beszerzése, 3516/1, 1957.

<sup>118</sup> Ackerson was the diplomat who gave refuge to Cardinal József Mindszenty, Roman Catholic primate of Hungary, after the crushing of the 1956 revolution. Lee A. Daniels, 'Garret G. Ackerson, 88, Envoy in East Europe during Cold War', *The New York Times*, 16 September 1992.

the offer, were not in need of assistance at this time.<sup>119</sup> In a letter to the press office of the Ministry, Károly Szigeti, the Hungarian official taking part in the meeting, noted that the Voice of America, Radio Free Europe and other Western radios had been portraying this offer as a grand gesture from the Americans and that it would be necessary to correct this misinformation through the press.<sup>120</sup>

The conflict soon moved from radio waves and pages of newspapers to diplomatic channels. Again, the issue of hard currency posed obstacles to closing the deal and caused delays in purchasing the vaccine. This delay was lengthened by the fact that 100,000 cm<sup>3</sup> of the vaccine was held up at customs in the United States, awaiting an export licence. This was particularly worrisome for Hungarians. Children had already been vaccinated with the initial Canadian batch of vaccine and were due to receive the second dose. If there was further delay, it would compromise the immunisation process and they would need to start the whole vaccination campaign again.<sup>121</sup> This was something they could not afford either financially, in terms of public health organisation, or for fear of losing face.

The Hungarians considered the absence of an export licence to be a diplomatic blackmailing tool on the part of the Americans. József Hamburger, head of Medimpex, the state company in charge of the vaccine import, was of the opinion that the United States would not sign the licence until the UN committee on the 1956 revolution concluded its investigation.<sup>122</sup> Even though members of the Foreign Trade Ministry and the Foreign Ministry were furious with the United States, they mutually agreed to save the counter-attack for later until an alternative Canadian shipment was secured.<sup>123</sup>

Eventually the additional Canadian shipment was not needed, nor did the Hungarians launch a public or diplomatic counter-attack. The Hungarians arranged a new meeting with Ackerson and this time took up his offer of assistance, and Ackerson honoured the request. The new shipment left the United States shortly afterwards and the Hungarian vaccination continued. If there were any further agreements in the background between the Hungarians and Americans to ensure the deal, the sources are silent on the matter. The United States did reveal that Hungary had already received 13 per cent of its

<sup>119</sup> Károly Szigeti, 'Feljegyzés Ackerson Tanácsos Amerikai id. Ügyvivő Látogatásáról.' Budapest: Magyar Nemzeti Levéltár, XIX-J-1-k USA Admin 1945–1964, 57. doboz, Amerikai segítség ajánlat gyermekbénulási gyógyszer vásárlásához, 19/3/h, 1957.

<sup>120</sup> 'Sajtóközlemény-Tervezet.' Budapest: Magyar Nemzeti Levéltár, XIX-J-1-k USA Admin 1945–1964, 57, Amerikai segítség ajánlat gyermekbénulási gyógyszer vásárlásához, 1957.

<sup>121</sup> László Hamburger, 'Az Amerikai Fél Által Támasztott Salk-Szérum Szállítási Nehézségei. Feljegyzés Bacsoni Jenő Miniszterhelyettes E.T. Részére', *ibid.*, 1376/B, 1957.

<sup>122</sup> *Ibid.*

<sup>123</sup> Jenő Bacsoni, 'Levél Sebes István Elvtársnak, a Külügyminiszter Helyettesének', *ibid.*, A Salk szérum beszerzése, 3516/1, 1957.

Salk vaccine export quota, i.e. the total Salk vaccine that the United States planned to export for the year. For this reason, they were not planning to release any more to this small Eastern European country, and warned the Hungarian government that for the further steps of their vaccination campaign, they should look elsewhere to procure the Salk vaccine.<sup>124</sup> With the vaccine crisis resolved, the Hungarian Foreign Ministry decided to forego any open criticism or to launch any propaganda against the United States and considered the whole affair as ‘case closed’.<sup>125</sup>

After the first official shipment of the Salk vaccine, nationwide immunisation could begin. To ensure sufficient tools for the mass campaign, the Hungarian army lent sterilisation equipment and syringes to the Health Ministry.<sup>126</sup> The vaccine was free of charge, and vaccination was organised on a voluntary basis. The Health Ministry headed the distribution and administration of the vaccine, while public health stations were responsible for the local organisation. Vaccination teams consisting of physicians and technicians administered the vaccine, and in some cases, the district doctor<sup>127</sup> or a private practitioner<sup>128</sup> injected the children.

The vaccination was free and voluntary, although parents were strongly encouraged to get their children vaccinated. Parents had to take their children to the local mother and child protection facilities on a designated day according to the alphabetical order of the children’s family names. Although the vaccination was organised according to permanent residence,<sup>129</sup> it was not limited to where families lived. For example, if someone was on holiday elsewhere or travelling during the vaccination period, they did not need to return home to receive the vaccine.<sup>130</sup> This aspect of how the vaccination was organised probably made sense at the time. A lot of people were travelling in the summer, especially children, who, during the summer holiday from school, were often deposited for weeks at the homes of grandparents and family members while their parents were working. However, this facilitation of

<sup>124</sup> Károly Szarka, ‘Ackerson Amerikai Ügyvivő Látogatása’, *ibid.*

<sup>125</sup> Jenő Baczoni, ‘Salk-Szérum Beszerzése’, Budapest: Magyar Nemzeti Levéltár, XIX-J-1-k USA Admin 1945–1964, 57, A Salk-szérum beszerzése, 1–00279/957, 1957.

<sup>126</sup> I. Benyó, ‘Gyermekbénulás Elleni Folytatólagos Védőoltások Szervezése’, Budapest: National Archives of Hungary, Egészségügyi Minisztérium iratai, 53.135/1957, 1957.

<sup>127</sup> Aladár Petrilla, *The Results of Intracutaneous Poliomyelitis Vaccination in Hungary, 1957*, *Acta Microbiologica* (Budapest: Akadémia Kiadó, 1958), 198–200.

<sup>128</sup> According to the report of the Microbiology Department of the Budapest Medical University, 80,000 children received vaccine through private practice by the end of the year. Ilona Szeri, Pál Földes and Szilárd Bognár, ‘Adatok a Poliomyelitis Elleni Intrakután Védőoltás Kérdéséhez’, *Orvosi Hetilap* 100, no. 38 (1959): 1364–65, at 1364.

<sup>129</sup> ‘Csütörtökön És Pénteken Kapják Az Első Védőoltást Az 1–2 Éves Gyerekek’, *Népakarat*, 16 July 1957.

<sup>130</sup> ‘Július 18. És 19-ÉN Megkezdődik a Gyermekbénulás Elleni Védőoltás. Az Egészségügyi Minisztérium Hivatalos Tájékoztatója’, *Népakarat*, 14 July 1957.

vaccination also contributed to later problems, when it became difficult to track down who was vaccinated and how many doses they had received.

The concept of free vaccination, administered on a mass scale, was a particular point of conflict and comparison between the two sides of the Iron Curtain. It was the ultimate representation of socialised medicine, a sign of the Red Menace in countries like the United States, the home country of Salk. His mass field trials in 1954 and the mass distribution of the vaccine the following year by the National Infantile Paralysis Foundation rang alarm bells. The fear of socialised medicine and of physicians being excluded from the vaccination process mobilised the medical profession to protest and lobby against low-cost, mass immunisation – with success.<sup>131</sup> Ironically, the AMA (as a tool in protecting its professional territory) was using Cold War rhetoric against a process that was organised not by the government, but by a foundation. One that, in fact, opposed any federal support or intervention in its mass trials and vaccinations for those same reasons: that it would reflect communist thinking and would be un-American.<sup>132</sup>

Meanwhile, in Hungary, the vaccination programme was not contested in any way, at least not on a professional and political level. This was, after all, socialised medicine, where doctors were appointed by local councils, and virology and public health departments answered to the Health Ministry. While many issues could spark battles among administrators, party officials and healthcare professionals, free vaccination on a mass scale was not one of them. However, there must have been some sort of suspicion towards the vaccine among the population, as some parents did not choose to vaccinate their children.<sup>133</sup> Some even went as far as to write a statement about their choice.<sup>134</sup> The communist government pointed fingers at an alleged counter-propaganda against vaccination, which reveals that at least a certain level of resistance among the population must have been perceived. Such a threat to the vaccination programme was taken so seriously that legal action was advised against anyone engaged in counter-propaganda against the Salk vaccine, with up to one year's imprisonment in accordance with the laws of 'criminal law protection of the democratic state order and the republic' from 1937 and 1947.<sup>135</sup>

Thus, it was important for the government to win the support and cooperation of parents. Leaflets titled 'What do we need to know about the vaccine

<sup>131</sup> Oshinsky, *Polio: An American Story*.

<sup>132</sup> *Ibid.* 200, and Colgrove, *State of Immunity*, 121–24.

<sup>133</sup> 'Az Egészségügyi Minisztérium Tájékoztatója a Gyermekbénulásos Megbetegedésekről', *Népszava*, 21 July 1959.

<sup>134</sup> Olga Ábel, 'Eddig 67 000 Gyereket Oltottak be Salk-Vakcinával a Fővárosban az Új Akció Kezdeté Óta', *ibid.*, 7 August.

<sup>135</sup> Benyó, 'Gyermekbénulás Elleni Folytatólagos Védőoltások Szervezése,' Insert no. 2.

against infantile paralysis?’ informed parents about the vaccination process and the significance of this particular disease prevention.<sup>136</sup> Newspapers published photos that showed photogenic toddlers receiving the vaccine, bravely facing the needle, sometimes accompanied by personal stories of the vaccination experience.

The time is 5:55 p.m. The medical tools have been sterilised and the cherry-red Salk vaccine is sparkling in the vial. The doctor washes her hands and calls out to the nurses: The first one may come.

- What’s your name, dear?
- Zsuzsika Csekő.
- How old are you, little one?
- Five – she replies bravely.

But her self-confidence lasts only until the needle touches her little arm. Then, she starts whimpering. Before she could break out crying, though, Zsuzsika Csekő has already received the first dose of vaccine against polio.

- We have inoculated three hundred children today from 8 a.m. to 4 p.m. in my district – says the doctor – Children usually take the vaccine very calmly, in my experience they discipline themselves much more in public.<sup>137</sup>

Stories such as the one above were aimed at convincing parents to subject their children to the painful injection. Moreover, by showing children’s bravery and emphasising the feat of the doctors, the propaganda set an example and laid out expectations for parents and children in how to behave in the fight against polio. Finally, these images of healthy and beautiful children, and the stories that accompanied them, communicated an assurance by the state that they would maintain the health of children and provide healthcare and vaccine for all in need.<sup>138</sup>

According to a subsequent report, the vaccine was administered in 0.2 millilitre doses, into the skin.<sup>139</sup> While the inactivated vaccine was usually injected into the muscle, some countries chose intradermal inoculation. This was called the Danish method<sup>140</sup> and served the purpose of sparing doses. The vaccine needed to immunise one child could be reduced by up to 20 per cent of

<sup>136</sup> Ibid. <sup>137</sup> Sz. Gy., ‘Most Jöjjön a Következő...’, *Népszava*, 11 February 1958, 1.

<sup>138</sup> At least part of the propaganda relating to the polio epidemic was the result of decisions on the highest levels. Ministerial Council meeting minutes from early July reveal an order for a ‘calming’ article based on statistical data that includes statements from healthcare professionals as well. ‘Javaslat a Gyermekparalízisről Szóló Sajtócikk Megjelenésére Vonatkozóan. Münich Elvtárs Szóbeli Javaslat.’ Budapest: National Archives of Hungary, Minisztertanács Iratai, M-KS 288.f/33. ö.e., 9R/81, 1957.

<sup>139</sup> Kátay, ‘Vaccination against Poliomyelitis in Hungary,’ 45.

<sup>140</sup> Paul, *A History of Poliomyelitis*, 436.

the original dose this way.<sup>141</sup> Since the intradermal vaccination method required special skill, vaccination brigades were set up, headed by doctors who were trained and experienced in this technique.<sup>142</sup>

The original decree on the vaccine import<sup>143</sup> set the sufficient quantity of vaccine that was needed to immunise the at-risk population at 1 million millilitres. At the same time, the decree pointed out that the shipment they were able to procure at that point would be enough to inoculate 375,000 children with two doses each.<sup>144</sup> However, a later decree, authorising the Foreign Ministry to issue payment for the Canadian import, referred to the same amount of vaccine as sufficient for the immunisation of 500,000 children.<sup>145</sup> The numbers become even more confusing if we take into account the dosage of 0.2 millilitres per injection. Using the Danish intradermal method, the initial shipment of 250,000 millilitres would have been enough to vaccinate the maximum number of 625,000 children (not taking into account the amount used for testing and the potential amount lost in transit and during administration). What we do know is that out of the 250,000 millilitres of the vaccine, 113,826 millilitres were issued for the first injections,<sup>146</sup> although it is not clear how much of that amount was used and how much of the remainder was reallocated to the second dose in August. As of now, it is uncertain how many children were indeed vaccinated with this initial shipment. It is also difficult to determine whether the number of injections specified by the decree was computed by the intramuscular method that required larger doses or whether the dosage in the 1960 report was inaccurate.

In August, the Health Ministry broadened the vaccination campaign. Between 9 August and 9 September, the new shipment of vaccine was to arrive from the American pharmaceutical company Parke-Davis. Together with the 250 litres of the first shipment, the ministry calculated that all children

<sup>141</sup> Sticchi L. et al., 'The Intradermal Vaccination: Past Experiences and Current Perspectives', *Journal of Preventive Medicine and Hygiene* 51, no. 1 (2010): 7–14, at 9. Currently, the WHO is considering using intradermal vaccination methods for the same reasons. See Martin Friede, 'Dose-Sparing by Intradermal Immunization' (Geneva: World Health Organization, 2006).

<sup>142</sup> Benyó, 'Gyermekbénulás Elleni Folytatólagos Védőoltások Szervezése.'

<sup>143</sup> Ferenc Münnich, 'A Magyar Forradalmi Munkás-Paraszt Kormány Határozata a Járványos Gyermekbénulás Időszerű Feladatairól Szóló 1062/1957/Vii.6./Korm Sz. Határozat Kiegészítéséről', in *3290/1957* (1957).

<sup>144</sup> *Ibid.*

<sup>145</sup> Minisztertanács, 'Gyermekbénulás Elleni Szérum Behozataláról', in *3311/1957* (Budapest, 18 July 1957).

<sup>146</sup> Gábor Veres, 'Kimutatás Salk Vakcina Kiadásáról És Készletéről', Budapest: National Archives of Hungary, Egészségügyi Minisztérium Állami közegészségügyi felügyelet és járványvédelmi főosztály iratai, XIX-C-2-e, 53137, 1957.



born between 1 January 1951 and 28 February 1957 could be vaccinated with two injections before the year was over.<sup>147</sup>

All children born in 1955 and 1956 who had not received their first injection in July were to be immunised, while the others from this age group would receive their second injection. Since there was now enough vaccine to broaden the programme, the age group was also widened: children up to 6 years old were also included, along with infants born in January and February 1957. The areas most severely affected by the epidemic received priority in organising the vaccination: the eastern counties of Borsod-Abaúj-Zemplén, Hajdú-Bihar and Szabolcs-Szatmár, the cities of Miskolc and Debrecen, and the capital, Budapest.<sup>148</sup>

By November, over 1 million children were said to have received two doses of vaccine,<sup>149</sup> and by the end of the year, the number of vaccinated children was reported to be 1.2 million.<sup>150</sup> The Salk vaccination was deemed a success. Because the vaccine was seen to have contributed to curbing the epidemic wave, in the three-year healthcare plan and the budget allocation for 1958, the government decided to assign 30 million forints to acquiring the Salk vaccine.<sup>151</sup> This way, children between 0 and 6 years old would be able to receive a third injection of the vaccine in 1958.<sup>152</sup> Soon, however, its success would have to be re-evaluated after the second largest epidemic wave in Hungarian history hit in the summer of 1959.

In the aftermath of the political and social crisis of the 1956 revolution, the Kádár government was faced with a new one, this time in the form of a severe epidemic. The new regime was performing a delicate balancing act. On the one hand, it was in the process of solidifying its power following a major uprising that was widely supported by the population and repressed by the Soviet army. The Kádár government fortified its position with the support of the hated occupiers, therefore it needed to show its strength: revolutionaries were incarcerated, many executed. On the other hand, the government also needed to show that it was capable of dealing with a major public health crisis and able to

<sup>147</sup> Benyó, 'Gyermekbénulás Elleni Folytatólagos Védőoltások Szervezése', Budapest: National Archives of Hungary, 1957.

<sup>148</sup> Ibid.

<sup>149</sup> 'Egymillió Gyerek Kapott Idén Védőoltást', *Népakarat*, 27 November 1957; 'Egymillió Gyerek Kapott Idén Védőoltást. Megkezdődtek a Magyar-Szovjet Orvosi Napok', *Népakarat*, 27 November 1957.

<sup>150</sup> Szeri, Földes, and Bognár, 'Adatok a Poliomyelitis Elleni Intrakután Védőoltás Kérdéséhez', 1959.

<sup>151</sup> 'Magasabb Összeg Egészségügyre – 30 Millió Salk-Vaccinára. Az Egészségügy Hároméves Tervéről és Jövő Évi Költségvetéséről Tárgyalt az Országgyűlés Szociális és Egészségügyi Bizottsága', *Népakarat*, 15 November 1957.

<sup>152</sup> Benyó, 'Gyermekbénulás Elleni Folytatólagos Védőoltások Szervezése', Budapest: National Archives of Hungary, 1957.

protect an important group upon which the communist regime centred much of its propaganda: children. The memories of the bloody uprising were too fresh to risk public discontent. Demonstrating incompetence in the face of a danger that affected the families, friends and acquaintances of children, or in other words most of the population, on a very personal level was not an option.

The fact that the disease mostly affected children and that the image of the child occupied a central part in the Communist Party's imagery of the future of the country prompted surprising steps from the government. It was for the same reason that these actions were relatively uncontested. For the sake of the children, the West German pilot could become a hero in the coldest days of Cold War Hungary; the paternal state could pass its self-proclaimed role of caretaker to citizens (actual parents); scientists could criss-cross Europe in a quest for domestic vaccine production, a project that would span three consecutive governments; and enemies new and old could become temporary allies in the common fight against an invisible, but powerful, enemy. Because it was for the good of children, in response to the concern of mothers and for the future of a healthy and strong nation, the holes that opened up in the Iron Curtain and the policies and practices that went against domestic politics and ideology seemed justified.

The holes in the Iron Curtain and alliances were, of course, temporary. They lasted while there was imminent threat of a dreaded disease. With the nation's vaccination, this threat disappeared: the light went dark, policies were withdrawn and rhetoric hardened as the epidemic wave of 1957 withered and died away. The communist state could be secure in its capabilities; it demonstrated its power and efficiency at home and to the world, albeit using a Western technology, with vaccinations carried out in the Eastern framework of the providing state. The citizen-children and child citizens were under threat of disease no more and they had the state to thank for that. Or at least that was the plan until 1959.