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# A Crippling Fear: Experiencing Polio in the Era of FDR

DANIEL J. WILSON

Poliomyelitis in the 1930s and 1940s was a fearedcrippler of children and young adults. In spite of advances in polio aftercare, the development of specialized treatment centers such as Warm Springs, and increasing scientific knowledge about the virus and the disease, the experience of polio remained terrifying. The epidemics between 1930 and 1945 never reached the magnitude of the 1916 epidemic that devastated the northeastern United States, but they occurred with sufficient severity and regularity to keep the crippling of polio in the minds of anxious parents and physicians. The symbol of Franklin D. Roosevelt, who had overcome the ravages of infantile paralysis to become president, dominated the public perception of the polio victim. There is no doubt that Roosevelt's commitment to the establishment of the Warm Springs Foundation dedicated to polio rehabilitation, and his later support for the National Foundation for Infantile Paralysis, fostered the development of more-effective therapies and ultimately of research into the causes and prevention of poliomyelitis. Roosevelt, however, was an ironic model for the polio survivor: the extent of his disability was largely hidden from the public even as he served as an inspiration for many victims of the virus.

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The polio experience in this decade and a half thus cannot be encompassed in the story of Roosevelt, Warm Springs, and the March of Dimes. Most polio victims lacked FDR's wealth, support, and access to the finest medical care that made possible his image as one who had recovered from polio. In the oral histories and published biographies and autobiographies of polio survivors, and in the letters that polio victims and their families wrote to President Roosevelt, lies a more complex story of the polio experience in this period.

Most studies of the polio epidemics and the development of the polio vaccines have slighted the history of polio during the years of Depression and World War II. Several studies, most notably Naomi Rogers's *Dirt and Disease: Polio before FDR*, have focused on the single most serious U.S. epidemic in New York and the northeast in 1916.<sup>1</sup> Other recent books—including those by Jane Smith, Tony Gould, and Kathryn Black—have focused on the post-World War II experience and on the development of the vaccines.<sup>2</sup> Some studies, especially John R. Paul's *History of Poliomyelitis* and Margaret Grimshaw's recent essay, discuss this period in some detail, but their primary subject is the scientific research into understanding and preventing the disease.<sup>3</sup> When scholars such as Rogers, Smith, Gould, and Black discuss the Depression and war years, they focus on the well-documented case of Roosevelt, stories of the founding of Warm Springs and the National Foundation for Infantile Paralysis, and the controversy surrounding the arrival of Sister Elizabeth Kenny in 1940.

Polio narratives from the period suggest that these set pieces fail to do justice to the full story of the experience of the many victims of the virus. The individual polio experience of this decade and a half was shaped less by what was happening nationally and more by personal circumstance—

1. Naomi Rogers, *Dirt and Disease: Polio before FDR* (New Brunswick, N.J.: Rutgers University Press, 1992). See also Stuart Galishoff, "Newark and the Great Polio Epidemic of 1916," *New Jersey Hist.*, 1976, 94: 101–11; Guenter B. Risse, "Revolt against Quarantine: Community Responses to the 1916 Polio Epidemic, Oyster Bay, New York," *Trans. Stud. Coll. Physicians Philadelphia*, 1992, 14: 23–50.

2. Jane S. Smith, *Patenting the Sun: Polio and the Salk Vaccine* (New York: Morrow, 1990); Tony Gould, *A Summer Plague: Polio and Its Survivors* (New Haven: Yale University Press, 1995); Kathryn Black, *In the Shadow of Polio: A Personal and Social History* (Reading, Mass.: Addison-Wesley, 1996). See also Naomi Rogers, "A Disease of Cleanliness: Polio in New York City, 1900–1990," in *Hives of Sickness: Public Health and Epidemics in New York City*, ed. David Rosner (New Brunswick, N.J.: Rutgers University Press for the Museum of the City of New York, 1995), pp. 115–30.

3. John R. Paul, *A History of Poliomyelitis* (New Haven: Yale University Press, 1971); Margaret L. Grimshaw, "Scientific Specialization and the Poliovirus Controversy in the Years before World War II," *Bull. Hist. Med.*, 1995, 69: 44–65.

where and how hard polio struck, and the local availability of acute and rehabilitative care. The considerable advances in the scientific understanding of poliomyelitis during the thirties had almost no impact on polio care and aftercare. The possibilities for rehabilitation were expanding, especially with the establishment of Warm Springs and the National Foundation, but most polio patients could not afford to travel to Warm Springs for care, and the National Foundation did not begin to pay for care until the late thirties and early forties. Most polio patients were treated locally by whatever orthodox or unorthodox methods were available. The most significant change in polio rehabilitation came with the introduction of Sister Kenny's methods in the early forties. The prevalence of polio, combined with the inadequacy or unavailability of rehabilitation, produced a growing population that feared the crippling of polio and the almost inevitable alienation, loneliness, pain, stigmatization, and loss of income or earning potential that followed. In their fears and anxieties, polio survivors and their families turned to the one obvious symbol of recovery from polio. In writing FDR they sought above all a reason to hope, to continue to struggle with rehabilitation, to try to overcome the crippling that had blighted their lives.

This history of the polio experience in these decades rests on two kinds of narrative: first, medical descriptions of the disease and of the treatments designed to alleviate its paralytic aftereffects; and second, the illness narratives, however truncated, embodied in the various published autobiographies and biographies, the oral histories of polio survivors, and the letters written to President Roosevelt.<sup>4</sup> Kathryn Montgomery Hunter has explored the differences between the medical narrative of the case history and the illness narrative told by the patient: The case histories allow the physicians to organize and control the individual situation presented by a particular patient. They become a way of incorporating the particular into the larger medical narrative that is contemporary medical knowledge of the disease. The physician appropriates and presents the case history for the edification of his colleagues and, upon publication, the broader profession. Illness narratives written by

4. The letters to Roosevelt cited below are contained in the President's Personal File, Franklin D. Roosevelt Library (hereafter PPF). There are approximately two thousand letters in the files. In most cases, a copy of the reply is attached to the original letter. All of the letters were read, but most of them contain little information about the polio victim or his or her circumstances; the conclusions in this essay are based on a smaller sample of 151 letters that were more informative.

For a study of published polio narratives, see Daniel J. Wilson, "Covenants of Work and Grace: Themes of Recovery and Redemption in Polio Narratives," *Lit. Med.*, 1994, 13: 22-41.

the patients, however, “supply those things that the case history rigorously excludes.”<sup>5</sup>

These illness narratives—or “pathographies,” as Anne Hunsaker Hawkins and others describe them—restore the voice of the patient, the survivor, to the larger historical narrative. Hawkins acknowledges that these narratives are reconstructions of the actual experience of illness, but that they remain true stories nonetheless. They are “both less and more than the actual experience”:<sup>6</sup> they are less, in the sense that no narrative can fully capture the lived experience, for things are invariably left out or misremembered; they are more, in that the constructed narrative adds a coherence, order, and meaning “that [were] probably only latent in the original experience.”<sup>7</sup> Similarly, Arthur Frank in *The Wounded Storyteller* defends the truth of illness narratives: “The truth of stories is not only what *was* experienced, but equally what *becomes* experience in the telling and its reception. The stories we tell about our lives are not necessarily those lives as they were lived, but these stories become our experience of those lives.”<sup>8</sup> These illness narratives, in contrast to the paradigm cases discussed in the medical literature, provide the historian with a window into how polio was experienced—into the fears, anxieties, struggles, and occasional triumphs that marked recovery.

Each type of illness narrative cited in this study—published polio narratives, transcriptions of oral history interviews, and letters written to President Roosevelt—presents opportunities and problems for the historian. The published polio narratives from this era are valuable for the ways in which they model society’s expectations of the polio patient. They are almost invariably stories of triumph over the disease. These writers recount how hard work and a determined will brought about a full, or almost full, recovery. The implication, of course, is that polio need not be feared and that the reader, too, can achieve a similar recovery. These narratives, then, tend to present only a positive and selective account of the experience.<sup>9</sup>

5. Kathryn Montgomery Hunter, *Doctors’ Stories: The Narrative Structure of Medical Knowledge* (Princeton: Princeton University Press, 1991), p. 154. See also pp. 52–53, 123–24.

6. Anne Hunsaker Hawkins, *Reconstructing Illness: Studies in Pathography* (West Lafayette, Ind.: Purdue University Press, 1993), p. 14.

7. *Ibid.*, p. 15.

8. Arthur W. Frank, *The Wounded Storyteller: Body, Illness, and Ethics* (Chicago: University of Chicago Press, 1995), p. 22.

9. On published polio narratives see Wilson, “Covenants of Work and Grace” (n. 4). On the work ethic in the early polio tradition, see Jessica Scheer and Mark L. Luborsky, “The Cultural Context of Polio Biographies,” *Orthopedics*, 1991, 14: 1178.

The oral history transcriptions present other challenges. Most of these interviews were recorded many years, sometimes decades, after the events occurred, and memory is not always a reliable guide to the lived experience. Many of the interviewees were children when they contracted polio, and their own memories may be colored by family accounts of the experience. The interviewees tell their own story, but it is a story that is shaped in part by their postpolio experience. Many of them embody what Arthur Frank has called the “quest narrative”: these men and women have refashioned their lives in the wake of polio’s destructive interruption. They have remade their lives and their stories in ways that cast credit on their experiences.<sup>10</sup>

The letters written to Roosevelt are generally closer in time to the polio experience than the published narratives or oral histories; however, they have their own limitations. The letters were generally written soon after the acute attack or during the long rehabilitation. Most writers were still in the midst of what Arthur Frank calls the “narrative wreckage”: the experience is too raw for them to have constructed a coherent narrative.<sup>11</sup> In writing to Roosevelt they were seeking not only sympathy and understanding, but some guidance on how to be “successfully ill.”<sup>12</sup> They wanted from the president some assurance that they too could meet the challenge and successfully overcome polio’s debilitating legacy. In addition, the letters provide only a single snapshot of a polio experience that extended over many years. There is no way of knowing how representative of the entire polio experience these single letters were. Thus, each of these sources shapes the polio narrative differently, but by taking them together, the historian can begin to construct a more comprehensive narrative of the polio experience out of the common experiences and shared themes evident in all three sources.

## Medical Knowledge of Poliomyelitis in the Thirties and Forties

Even though poliomyelitis—or infantile paralysis, as it was often called in these years—was one of the most feared diseases, its rate of incidence was actually well below that of other, more common, and sometimes deadly diseases. For the period 1930–45, polio’s rate per 100,000 population ranged from 14.3 (in 1944) to 1.3 (in 1938); in most years, it was between

10. Frank, *Wounded Storyteller* (n. 8), pp. 122–23, 128.

11. *Ibid.*, p. 55.

12. The phrase is from Tim Brookes, and is quoted in *ibid.*, p. 62.

3 and 8 per 100,000.<sup>13</sup> Journalistic accounts that stressed polio's ability to cripple heightened popular fears. Morris Fishbein, a physician and long-time editor of the *Journal of the American Medical Association*, writing in *Pictorial Review* in 1935, described infantile paralysis as "the crippling enemy that chiefly attacks children," and as the "most dreaded of all the epidemic diseases among communities in which good hygiene and sanitation have driven out typhoid fever, eliminated yellow fever and malaria, and controlled most of the common infectious diseases."<sup>14</sup> Maxine Davis, writing in *Good Housekeeping* in 1941, even though she acknowledged that polio was "comparatively rare," declared that "there is no disease that frightens parents so much as infantile paralysis."<sup>15</sup> Contemporary physicians, too, recognized that polio was feared "far out of all proportion to the actual menace of the disease":

Every family shudders at the thought that any of its members might become crippled, and every doctor dreads having a patient who might become a cripple. In definite contrast to pneumonia, diphtheria or typhoid fever, it is not death that is feared so much as the crippling aftermath of the disease, a *physical crippling* which may last a lifetime and impair the activities of an otherwise healthy person.<sup>16</sup>

Polio fears were exacerbated by the lack of solid medical knowledge regarding the disease and by the inability of physicians to predict and prevent either the disease or the crippling. Poliomyelitis had been extensively studied in the United States since the first decade of the century, particularly at the Rockefeller Institute under the direction of Simon Flexner. The virus itself was first identified by the Viennese physician Karl Landsteiner in 1908. Flexner, in 1909, was the first to demonstrate in the laboratory that "polio was an infectious disease."<sup>17</sup> These early discoveries, however, could not prevent or mitigate the largest single epidemic in 1916 in New York and the northeastern United States, which produced

13. In contrast to polio, the rate for tuberculosis in these years never dropped below 78 per 100,000 (1940), with a high of 101.5 (1930); scarlet fever and streptococcal sore throat never went below 101.4 per 100,000 (1942), and went as high as 211 (1935); and diphtheria ranged between 10.6 per 100,000 (1944) and 57.1 (1931): Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970, Bicentennial Edition*, 2 vols. (Washington, D.C.: Government Publishing Office, 1975), 1: 77.

14. Morris Fishbein, "Polio: The Crippling Disease," *Pictorial Rev.*, August 1935, p. 16.

15. Maxine Davis, "Good Housekeeping's Home Chart for Infantile Paralysis," *Good Housekeeping*, August 1941, p. 41.

16. Philip Lewin, *Infantile Paralysis: Anterior Poliomyelitis* (Philadelphia: Saunders, 1941), p. 5 (emphasis in original). See also Smith, *Patenting the Sun* (n. 2), p. 37.

17. Saul Benison, "Poliomyelitis and the Rockefeller Institute: Social Effects and Institutional Response," *J. Hist. Med. All. Sci.*, 1974, 29: 74–92, quotation on p. 75.

some 27,000 cases and 6,000 deaths in twenty-six states, including 8,900 cases and 2,400 deaths in New York City.<sup>18</sup> The only weapons that officials had in this epidemic, and in those to come, were the traditional weapons of public health: quarantine and hospitalization of patients, cleanliness campaigns including anti-fly efforts, and appeals for calm. None of these efforts altered the course of the epidemic, which began in June and did not taper off until October.<sup>19</sup> Physicians and epidemiologists who studied the 1916 epidemic concluded that quarantines were ineffective, that poliomyelitis was transmitted directly from human to human by an unknown mechanism, that paralytic cases constituted only a small fraction of the total infectious cases, that asymptomatic carriers spread the disease, and that an epidemic produced immunity in the general population, leading ultimately to the decline of the epidemic.<sup>20</sup> These discoveries, although important scientifically, still did not give physicians or public health officials the tools they needed to prevent or stop an epidemic.

Medical inquiry into poliomyelitis continued in the 1920s and 1930s, with a number of important discoveries and two disappointing failures of attempted prevention. During the 1916 epidemic and throughout the 1920s a number of physicians experimented with injections of serum derived from recently convalescent polio patients. Some early trials had indicated that the injected convalescent serum, by introducing antibodies, could prevent or reduce paralysis in an active case of poliomyelitis; however, later trials did not confirm the efficacy of the serum, and by the early 1930s it was largely abandoned as therapeutically ineffective.<sup>21</sup> Other discoveries did not have such immediate clinical application, although they did significantly increase scientific understanding of the disease. For example, during the severe 1931 epidemic in Connecticut, physicians at Yale (soon to become the important Yale Poliomyelitis Study Unit) were able to isolate the virus from individuals with only minor illnesses, thereby confirming the statistical evidence that polio

18. Rogers, *Dirt and Disease* (n. 1), pp. 10–11.

19. *Ibid.*, pp. 6, 31–33; Paul, *History* (n. 3), pp. 148–60. See also Haven Emerson, *A Monograph on the Epidemic of Poliomyelitis (Infantile Paralysis) in New York City in 1916. Based on the Official Reports of the Bureaus of the Department of Health* (New York: Department of Health, 1917).

20. Paul, *History* (n. 3), pp. 158–59. See also Rogers, *Dirt and Disease* (n. 1), pp. 162–64.

21. Paul, *History* (n. 3), pp. 190–99; Paul notes that the principle behind the convalescent serum was correct, and with improved techniques it would be used in the development of gamma globulin in the 1940s. For contemporary advocates of the serum, see Lewin, *Infantile Paralysis* (n. 16), pp. 120–25; George Draper, *Infantile Paralysis* (New York: Appleton-Century, 1935), pp. 146–56.

could infect those who showed no paralytic symptoms.<sup>22</sup> That same year, F. Macfarlane Burnet and Jean Macnamara in Australia demonstrated that there were at least two strains of the poliovirus. This discovery would be crucial to the ultimate development of an effective vaccine, although some contemporaries, including Simon Flexner, remained skeptical of the evidence.<sup>23</sup>

Flexner, who was perhaps the most influential poliomyelitis scientist in the United States in the first third of the century, had one of his key theories—that the virus in man was introduced through the nose—challenged in the thirties. He had been able in the laboratory to infect monkeys by wiping infected swabs in the mucus of their nasal passages. As John Paul observed, Flexner and his colleagues “tacitly assumed that in the natural infection in man the virus traveled the same route as in the intranasally inoculated monkey.”<sup>24</sup> From the early twentieth century there had been clinical evidence for the oral-fecal route as the means of infection in humans, but only in the 1930s did the clinical and laboratory evidence convincingly point away from the nose as the point of entry for the virus. Even then, it took some years for the oral-fecal route to be generally accepted in the medical profession.<sup>25</sup> None of these developments had an immediate impact on the prevention or treatment of poliomyelitis, although they ultimately contributed to the development of successful vaccines.

Once scientists had determined that poliomyelitis was caused by a virus, they recognized that developing a vaccine was potentially the best preventive—but developing that vaccine would be more difficult than anyone initially anticipated. Experiments, particularly with monkeys, began as early as 1910 at the Rockefeller Institute under Flexner’s direction; however, it proved difficult to induce immunity without running the risk of paralysis. There was renewed interest in a vaccine in the 1930s, especially by two physicians, Dr. Maurice Brodie of New York and Dr. John A. Kolmer of Philadelphia, who developed competing versions of a vaccine. In 1935, following limited trials with monkeys, both men attempted human trials for the first time. Working with William H. Park’s New York City Health Laboratory, Brodie inoculated more than three thousand volunteers with a virus inactivated with formalin and he claimed to have detected a rise in antibodies to the polio virus; however, during

22. Paul, *History* (n. 3), pp. 207–8.

23. *Ibid.*, pp. 225–32.

24. *Ibid.*, p. 243.

25. *Ibid.*, pp. 248–51. For contemporary skepticism regarding the oral-fecal route, see Lewin, *Infantile Paralysis* (n. 16), pp. 18–22; Draper, *Infantile Paralysis* (n. 21), pp. 37–51.

these Brodie-Park trials “something went wrong—and Brodie’s vaccine was never used again.”<sup>26</sup> John Kolmer’s attenuated vaccine, which some described as “a veritable witch’s brew,”<sup>27</sup> was given to several thousand children after trials in only forty-two monkeys; the results were disastrous: at least twelve cases of poliomyelitis, six of them fatal. These cases put a quick end to both trials, and “a wave of revulsion against human vaccination attempts in poliomyelitis took place that lasted many years.”<sup>28</sup>

The failures at prevention and the continuing prevalence of poliomyelitis in these years necessitated the care and treatment of those infected and acutely ill, as well as those left with weak or paralyzed muscles. Medical texts stressed the importance of early and accurate diagnosis to prevent the spread of the disease and to limit the extent of crippling in the individual. Early diagnosis could be difficult, however, because the initial manifestations of poliomyelitis, flu-like symptoms accompanied by a fever, were not disease-specific. As one medical text put it, “before paralysis appears, there is no specific sign or symptom that makes the diagnosis of poliomyelitis certain.”<sup>29</sup> In the classic case described by George Draper, the patient exhibits a period of feverishness possibly accompanied by vomiting and diarrhea. This is followed by a period of remission when the patient seems to be recovering. However, in many cases the disease then proceeds to a second phase of central nervous system involvement in which the fever returns accompanied by sensitivity to touch, stiffness (especially in the back and neck), and paralysis. Poliomyelitis could be confirmed by a spinal tap, though in most cases paralysis was sufficient confirmation.<sup>30</sup>

When the second phase began and paralysis set in, there was little physicians could do other than to isolate the patient in the hospital or at home to prevent additional cases, and make the patient as comfortable as possible while the virus ran its course. Physicians also recommended keeping the muscles in a neutral resting position to help prevent future

26. Paul, *History* (n. 3), pp. 254–56. Paul was unable to determine what went wrong with the Brodie-Park trials.

27. *Ibid.*, p. 258.

28. *Ibid.*, p. 260.

29. Lewin, *Infantile Paralysis* (n. 16), p. 79. See also M. Neustaedter, “Diagnosis and Treatment of Anterio-Poliomyelitis in the Pre- and Postparalytic Stage,” *Internat. Clin.*, 1914, 4: 87–96, quotation on p. 91; John Ruhräh and Erwin E. Mayer, *Poliomyelitis in All Its Aspects* (Philadelphia: Lea & Febiger, 1917), pp. 54–55, 144–56; Draper, *Infantile Paralysis* (n. 21), pp. 114–35.

30. Draper, *Infantile Paralysis* (n. 21), pp. 114–35.

deformities.<sup>31</sup> In cases of paralyzed respiratory muscles or severe bulbar poliomyelitis, the new Drinker tank respirator (iron lung) developed in 1928 frequently proved a lifesaver. Physicians, however, often faced difficult decisions involving these respirators because they were not always available when needed, nor available in sufficient numbers during epidemics.<sup>32</sup>

Once the fever had subsided and the acute phase of the disease had passed, treatment focused on preventing deformity as a result of weakened or paralyzed muscles. The traditional method to prevent deformed limbs and torsos was the immobilization of the affected body parts with plaster casts, splints, and braces to prevent the stronger or unaffected muscles from twisting or bending the body unnaturally; this was maintained until muscle tenderness disappeared and the recovery of muscle strength had occurred, which might take six to eight months. Heat and warm baths were recommended to alleviate muscle pain. This traditional approach emphasized the significant risk of beginning physical therapy too soon. When muscle soreness finally ended, active physical therapy began, including muscle training, assisted movements, underwater movement and exercise, and massage. Fatigue was to be avoided at all costs, however, and therapists and mothers were cautioned to proceed slowly.<sup>33</sup> Once muscle strength had been fully recovered and the extent of the remaining paralysis or weakness was evident, physicians often recommended orthopedic surgery to stabilize or correct deformed limbs, joints, or spine, or to transplant working muscles or tendons in order to provide compensating functions.<sup>34</sup> This was the regimen followed at most medical centers treating poliomyelitis in the 1930s. Not all polio patients received this treatment: some received little or no medical attention, and others were the recipients of unorthodox procedures.

This traditional regime was shaken with the 1940 arrival in the United States of the Australian nurse Elizabeth Kenny. Kenny had developed a

31. Lewin, *Infantile Paralysis* (n. 16), pp. 117–19, 136; Draper, *Infantile Paralysis* (n. 21), pp. 158, 161–62; “Preventing Deformity after Infantile Paralysis,” *Hygeia*, 1932, 10: 1022; Richard Kovacs, “The Treatment of Paralysis,” *Hygeia*, 1940, 18: 685–87, see especially p. 686.

32. Lewin, *Infantile Paralysis* (n. 16), pp. 129–35; Paul, *History* (n. 3), pp. 324–34; Philip A. Drinker and Charles F. McKhann III, “Landmark Perspective: The Iron Lung. First Practical Means of Respiratory Support,” *JAMA*, 1986, 255: 1476–80, see especially p. 1477.

33. Lewin, *Infantile Paralysis* (n. 16), pp. 156–65. See also Draper, *Infantile Paralysis* (n. 21), pp. 161–62; “Preventing Deformity” (n. 31), p. 1022; Kovacs, “Treatment of Paralysis” (n. 31), pp. 686–87; Paul C. Colonna, “The Care of Infantile Paralysis,” *Hygeia*, 1936, 14: 680–82, see especially p. 680–81.

34. For a description of common surgical procedures, see Lewin, *Infantile Paralysis* (n. 16), pp. 209–322.

novel and controversial approach to the treatment of poliomyelitis patients. Her treatment differed most dramatically from the traditional in its total rejection of immobilization, and in beginning muscle treatment and reeducation within days of the initial diagnosis, often during the acute phase. She focused on reducing or eliminating muscle spasms through frequently applied wet wool hot packs, and overcoming muscle incoordination and alienation through therapist-assisted passive motion of the affected muscles. The muscle training intensified once the pain, tenderness, and spasm had subsided, with the patient gradually relearning to move the once-paralyzed muscles.<sup>35</sup> Even though some physicians had begun to question the excessive immobilization and splinting before Kenny's arrival, her blunt, outspoken challenge to medical orthodoxy created substantial controversy in polio aftercare.<sup>36</sup> In the early forties, there seemed to be little middle ground between the traditional practitioners and Kenny: both sides pointed to their successes, and to the dangers of the other approach. Nonetheless, the Kenny method quickly gained adherents among physicians and parents, and during the early forties many polio patients were treated with the Kenny method, or variations on it. Physicians were more opposed to the theory behind her method—that polio was a muscle disease, rather than a nerve disease—than to her treatment methods, and they soon discovered that they could successfully apply her treatments without necessarily accepting her disease theories.<sup>37</sup>

A number of themes stand out in the treatments recommended for polio patients in these years. Physicians repeatedly stressed the importance of early and accurate diagnosis, along with the need for absolute rest during the acute phase of the disease. Hospitalization was usually recommended, although home care was permissible if proper conditions were available.<sup>38</sup> Care by a competent physician was essential: the sources uniformly warned against self-treatment. The nature of the treatment during and following the acute phase depended on whether the attending physician adhered to the traditional approach or to the Kenny method. In either case, physicians counseled patience: recovery from polio was a slow, arduous process, and attempting to proceed too quickly

35. Elizabeth Kenny, *The Treatment of Infantile Paralysis in the Acute Stage* (Minneapolis: Bruce, 1941), p. 12. See also John F. Pohl in collaboration with Elizabeth Kenny, *The Kenny Concept of Infantile Paralysis and Its Treatment* (Minneapolis: Bruce, 1943), pp. 83–141.

36. Paul, *History* (n. 3), pp. 338–40; Roland H. Berg, *The Challenge of Polio: The Crusade against Infantile Paralysis* (New York: Dial Press, 1946), pp. 160–61, 164.

37. Berg, *Challenge* (n. 36), pp. 160, 164, 168–70.

38. Lewin, *Infantile Paralysis* (n. 16), p. 118; Florence Brookins Newnan, "Home Care after Infantile Paralysis," *Hygeia*, 1932, 10: 1008–10, see especially p. 1008.

risked further damage and imperiled a full recovery.<sup>39</sup> Treatment facilities were available, but not everyone had access to the full range of facilities due to geographical distance, a shortage of beds, and other economic and social factors. Henry Kessler's survey of national resources for crippled individuals revealed that only twenty-one states "fairly well met" the needs of crippled children, which left large sections of the country underserved;<sup>40</sup> he concluded that there was a "great disparity between the number of cripples who need care of some sort and the facilities available."<sup>41</sup> Other medical sources urged physicians to take into account "the social and economic status of the patient" in deciding on the "advisability of correcting paralytic deformities by surgical interference."<sup>42</sup> Race, as well as income, could affect the treatment available. For example, the facilities at Warm Springs, Georgia, were barred to blacks; in 1939, to deflect criticism of this policy, the National Foundation for Infantile Paralysis provided a grant to the Tuskegee Institute to establish a polio rehabilitation center for blacks.<sup>43</sup>

The crippling associated with poliomyelitis remained a substantial problem for many in the period. In 1935, Henry Kessler concluded that "infantile paralysis seems to be the predominant cause of crippling in childhood."<sup>44</sup> In several city surveys, poliomyelitis caused between 27% and 51% of the crippling in children.<sup>45</sup> Philip Lewin, using government statistics from 1940, found that, nationally, poliomyelitis crippled a total of 36,271 children (19.2% of the total of 188,579). He cites another health survey that found that poliomyelitis crippled 24% of the total; the percentages in the different states ranged from a low of 5.9% to a high of 38.1%.<sup>46</sup> These numbers demonstrate that in spite of the hopeful words of physicians and journalists, the fear of permanent crippling was real.

## Stories of Recovery from Infantile Paralysis

Both medical and popular sources downplayed the crippling of polio in favor of the hope of full recovery. Richard Kovacs argued that "in most

39. Frederick Bradman, "Salvage: Reclaiming the 'Polio' Victim," *Hygeia*, 1933, 11: 896–97; "Preventing Deformity" (n. 31), p. 1022; Lewin, *Infantile Paralysis* (n. 16), p. 117.

40. Henry H. Kessler, *The Crippled and the Disabled: Rehabilitation of the Physically Handicapped in the United States* (New York: Columbia University Press, 1935), p. 256.

41. *Ibid.*, p. 57.

42. Colonna, "Care of Infantile Paralysis" (n. 33), p. 682.

43. Gould, *Summer Plague* (n. 2), pp. 77–84.

44. Kessler, *Crippled* (n. 40), pp. 42–43.

45. *Ibid.*, pp. 40–41; Kessler suspected that the available figures undercounted the actual numbers because "cripples are often concealed" (pp. 52–53).

46. Lewin, *Infantile Paralysis* (n. 16), pp. 327–28.

cases one is justified in looking forward to considerable improvement. Even if permanent handicaps remain, these may be lessened or removed at a later time by the use of braces or surgery. There is hope for all, even for those who are most severely paralyzed.”<sup>47</sup> Frederick Bradman asserted that through modern surgical techniques “old broken bodies are made new!”<sup>48</sup> Paul de Kruif—former bacteriologist, medical journalist, and soon to be science advisor to the president’s Infantile Paralysis Commission—in a *Ladies Home Journal* story on the Georgia facility concluded that “there’s hope for everybody” and that there were no limits to what was possible.<sup>49</sup> Maxine Davis in *Good Housekeeping* assured parents that not only was polio “comparatively rare, . . . its dread aftereffects can be largely minimized or frequently eliminated entirely by prompt and effective measures.”<sup>50</sup>

Narratives of the polio experience published in the thirties and early forties continued this theme with their stories of triumph over adversity. Polio could be defeated by good medical care and the right attitude. Good medical care, they argued—including a long period of rehabilitative therapy, and surgery if necessary—was the first prerequisite to overcoming polio. However, hard work (by parents and patients), strong discipline, and the right attitude were the real keys to leaving the realm of the handicapped. Several titles illustrate the point: “I Had Infantile Paralysis,” “My Son—Handicapped?” and “Forward from Polio.” J. Brooks Emory, writing in *Good Housekeeping*, recounted the story of his victory over polio. His mother exercised strong determination in following the physician’s two rules: “Don’t treat him like a cripple. . . . Don’t spoil him.”<sup>51</sup> For Emory, building his self-respect and developing his will allowed him to survive paralysis, while painful rehabilitation and numerous operations enabled him to become a “normal, healthy man.”<sup>52</sup> Emory concluded that “these two things—the proper medical treatment and the right mental attitude—go hand in hand.”<sup>53</sup> The anonymous mother

47. Kovacs, “Treatment of Paralysis” (n. 31), p. 687.

48. Bradman, “Salvage” (n. 39), p. 897.

49. Paul de Kruif, “Forward from Polio,” *Ladies Home Journal*, February 1934, pp. 110, 111, quotation on p. 110. On de Kruif’s ties to the President’s Infantile Paralysis Commission, see Paul de Kruif, *The Sweeping Wind: A Memoir* (New York: Harcourt, Brace & World, 1962), pp. 177–84; Elmer Bendiner, “DeKruif: From Practitioner to Chronicler of Science,” *Hosp. Pract.*, 1979, 14: 31–57, see especially p. 57.

50. Davis, “Home Chart” (n. 15), p. 41.

51. J. Brooks Emory, Jr., “I Had Infantile Paralysis,” *Good Housekeeping*, March 1936, p. 129.

52. *Ibid.*, p. 136.

53. *Ibid.*, p. 133.

who described her son's recovery in the *Saturday Evening Post* stressed the importance of taking the "hard way": no babying, coddling, or shielding him. With her once-paralyzed son in college and looking forward to becoming an orthopedic surgeon, she concludes that "if a handicap is accepted as a challenge, and if the handicapped person refuses to accept it as an insurmountable barrier, then the compensations received in the process of overcoming the handicap may more than outweigh it on life's scales."<sup>54</sup> Paul De Kruif's account of a "polio fighter's" stay at Warm Springs demonstrated the hopeful possibilities: "Better than any death fighter I've ever known, the polio fighter knows there are no impossibles. When I asked him . . . how much nearer normal he was going to get, he smiled. 'I'm not setting a limit. You see, there's no limit if you don't set one,' he said."<sup>55</sup>

Only an anonymous account in *Parents Magazine* made it explicitly clear that there were limits to what medical science could accomplish, and that the final outcome depended as much on one's outlook as on the work of surgeons and therapists. In the piece "I Am Physically Handicapped," the woman describes her various efforts, at her mother's urging, to act and be normal in spite of needing braces and crutches to walk. Only when her physician asks her to teach swimming and act as a role model to other crippled children does she come to terms with her disability. She no longer feels that she has to pretend, for her mother and herself, that she is normal: "I'm doing something that I can do better than other people *because* I'm physically handicapped. Isn't that really a 'normal' life? Anyway, it's a marvelously happy one."<sup>56</sup> With rare exceptions, readers of these popular accounts could come away believing that good medicine and the right attitude could defeat polio.

The public image of Franklin Roosevelt as a man who was cured and recovered from infantile paralysis contributed to this hopeful image of polio recovery presented in the popular press. From the onset of his illness through his presidency, Roosevelt—assisted by his wife, Eleanor, his close aide Louis Howe, and other family, friends, and staff—carefully controlled what the public knew about his disease, his recovery and rehabilitation, and his continued paralysis and failure to regain full use of his legs. His hope for a continuing political career was maintained through the fiction that he had recovered fully from polio and needed only to strengthen his legs through exercise. In fact, he could not stand

54. "My Son—Handicapped?" *Saturday Evening Post*, 19 September 1936, pp. 8, 98, quotation on p. 98.

55. De Kruif, "Forward from Polio" (n. 49), p. 111.

56. "I Am Physically Handicapped," *Parents Mag.*, March 1939, pp. 30, 100.

without his heavy braces, and walking was impossible without crutches or a cane and the strong arm of his son or another friend. Roosevelt's wealth, and later his political positions as governor of New York and as president, enabled him to overcome the obstacles that kept many polio survivors prisoners in their own homes. He became the best known and most powerful survivor of polio because he so skillfully disguised his disability and deflected questions about his health. While concealing the extent of his paralysis from the general public, Roosevelt never denied his links to the world of polio. In the 1920s he devoted considerable time and much of his own wealth to turning a failing Georgia resort into a major rehabilitation facility, the Warm Springs Foundation. A decade later, he lent his name and influence to the March of Dimes, the fundraising efforts of the National Foundation for Infantile Paralysis.<sup>57</sup>

Historians continue to debate the influence that Roosevelt's polio had on moderating his patrician upbringing and making him more sympathetic to the cares and needs of ordinary citizens. Most historians, even those who strip away the veil of secrecy regarding his disabilities, credit him with being a powerful example to those who were similarly afflicted, contributing substantially to the rehabilitation of polio victims and the search for a vaccine, and lessening the stigma associated with polio.<sup>58</sup> John Duffy, however, was more critical of Roosevelt, arguing that, at best, he was an "ambiguous symbol for disabled people."<sup>59</sup> Roosevelt, he charged, failed to use the power of his position as president to "benefit other handicapped Americans."<sup>60</sup> As president, he "never attempted

57. The most complete accounts of Roosevelt's polio and its effect on him personally and politically are Geoffrey C. Ward, *A First-Class Temperament: The Emergence of Franklin Roosevelt* (New York: Harper & Row, 1989); Hugh Gregory Gallagher, *FDR's Splendid Deception*, rev. ed. (Arlington, Va.: Vandamere Press, 1994); Richard Thayer Goldberg, *The Making of Franklin D. Roosevelt: Triumph Over Disability* (Cambridge, Mass.: Abt Books, 1981). Other sources on Roosevelt and Warm Springs include Theo Lippmann, Jr., *The Squire of Warm Springs: FDR in Georgia, 1924-1945* (Chicago: Playboy Press, 1978); Turnley Walker, *Roosevelt and the Warm Springs Story* (New York: Wyn, 1953); and Gould, *Summer Plague* (n. 2), pp. 29-84, 112-19.

58. See, for example, Ward, *First-Class Temperament* (n. 57), pp. 723-24, 729; Gallagher, *Splendid Deception* (n. 57), pp. 53-56, 145, 151-52; Goldberg, *Making* (n. 57), pp. 67-68, 165; Smith, *Patenting the Sun* (n. 2), pp. 46, 52.

59. John Duffy, "Franklin Roosevelt: Ambiguous Symbol for Disabled Americans," *Midwest Quart.*, 1987, 29: 113. Naomi Rogers argues that Roosevelt "did not significantly alter the popular image of the disabled," although she credits him with helping "to loosen the earlier link between polio, dirt, and the immigrant poor" (Rogers, *Dirt and Disease* [n. 1], p. 169).

60. Duffy, "Franklin Roosevelt" (n. 59), p. 113.

either directly or indirectly to promote legislation to benefit citizens with disabilities or to use his private influence to assist them.”<sup>61</sup> In terms of legislation passed and barriers removed, Duffy had a point: not until 1990 did Congress pass a law designed to make the United States accessible to the handicapped. However, for those who had polio during Roosevelt’s presidency, his example, even if carefully manipulated, was more significant. At a time when the ideology of self-help still predominated, stories of Roosevelt’s “recovery” demonstrated what could be done with hard work, courage, a good spirit, and a well-placed word of encouragement.

### The Patient’s Perspective on Polio

The polio stories become more complex when one goes beyond the public polio image created in the popular press and medical writings of the time. The letters written to President Roosevelt and a recent collection of oral histories reveal more of the pain, struggle, uncertainty, isolation, disappointment, and stigmatization that characterized the polio experience.<sup>62</sup> These illness narratives seldom conformed to the classic paradigm cases described in the medical texts. One can, of course, find stories of victory over polio in these accounts, but triumph is never so certain or complete as in the published narratives.

In spite of the physicians’ universal insistence on the importance of early diagnosis and proper treatment, the difficulty of accurately diagnosing poliomyelitis in the early stages frequently made for inaccurate or delayed diagnosis. Because the first manifestations of the disease were flu-like symptoms, it was frequently diagnosed as a case of influenza. Only when paralysis appeared was infantile paralysis diagnosed.<sup>63</sup> When Millie Teders contracted the disease, her physician, although suspecting polio, initially diagnosed it as pneumonia, in spite of her characteristic stiff neck. He prescribed sulfa drugs to combat the pneumonia, and for several days checked her reflexes. As long as the reflexes were normal, he withheld the diagnosis of polio; only on the third day, when her reflexes had disappeared and she collapsed while attempting to walk, was he certain that she had polio.<sup>64</sup> Elaine Lodermeier’s physician initially diag-

61. *Ibid.*, p. 134.

62. Edmund J. Sass, with George Gottfried and Anthony Sorem, *Polio’s Legacy: An Oral History* (Lanham, Md.: University Press of America, 1996).

63. Buddy Worley to FDR, 25 November 1940, PPF 50; Mr. and Mrs. Homer Jones to FDR, 6 September 1934, PPF 50.

64. Millie Teders in Sass, *Polio’s Legacy* (n. 62), pp. 193–94.

nosed her illness as an abscess in her throat and suggested she try to swallow a raw egg; when she could not swallow anything more she was taken to the hospital, where polio was diagnosed.<sup>65</sup> Because Leota Brow was sick to her stomach, her physician diagnosed her ailment as food poisoning. Only when paralyzed “all over” was she sent from her small New Mexico town to Dallas, where polio was diagnosed.<sup>66</sup> In some cases, the diagnosis came only after the acute phase had passed. Charles Stone recalled that “it was only after I was well enough to get out of bed, and I was dragging my left leg, that it was determined I’d had polio.”<sup>67</sup>

Polio experts insisted on the importance of early and accurate diagnosis because of evidence that physical activity in the acute phase increased the severity of the paralysis. However, the flu-like symptoms of the early phase of the disease meant that some victims tried to carry on their usual activities, with perhaps only an aspirin to relieve the headache. Richard Owen was sick enough initially to stay home from school for a few days, but then, feeling better, he returned to school and delivered the newspapers on his route. The following day he again felt ill, his legs would not carry him when he tried to walk, and polio was soon diagnosed.<sup>68</sup> Nine-year-old Millie Teders developed a headache at school, but walked three miles home. The following day, the headache gone, she walked back to school; by mid-morning the headache had returned, but since neither the school nor her parents had a telephone she remained at school all day, and then she “literally dragged” herself home.<sup>69</sup> In A. J. Schmidt’s case, he worked for two days before staying home with his illness, and then it was another two days before the physician was summoned.<sup>70</sup> These accounts of the onset of polio illustrate the difficulty of diagnosing the disease. They also suggest that a correct diagnosis was dependent not only on the physician’s diagnostic skills, but on the ability of parents to recognize in flu-like symptoms the possibility of infantile paralysis. Unless an epidemic was raging, parents, like physicians, might not expect polio until the child could no longer stand, walk, or move.

As we have seen, the standard treatment for polio in this period was immobilization during the acute phase and the subsequent period of muscle soreness. These more-immediate accounts confirm that the stan-

65. Elaine Lodermeier in *ibid.*, pp. 196–97.

66. Leota Brow, “Memories of My Polio Experience,” *APPA News: Newsletter of the Atlanta Post Polio Association*, January–March 1996, unpaginated [[http://www.eskimo.com/~dempt/appa11\\_1.htm](http://www.eskimo.com/~dempt/appa11_1.htm)].

67. Charles Stone in Sass, *Polio’s Legacy* (n. 62), p. 176.

68. Richard Owen in *ibid.*, p. 30.

69. Teders in *ibid.*, p. 194.

70. A. J. Schmidt to FDR, 12 January 1937, PPF 50.

ard treatments were widely applied. Most of those stricken were taken to hospitals as soon as polio was suspected or diagnosed. When possible, patients were taken to local hospitals, but in the more rural regions the nearest facility equipped to handle polio patients could be at some distance, or even in another state.<sup>71</sup> Servicemen who contracted polio overseas were sometimes flown back to the United States for treatment.<sup>72</sup> In epidemic years, special strategies might be required to secure admission to already-overcrowded hospitals. Millie Teders recalled that when her physician discovered that the Minneapolis hospitals were full and not accepting any new polio patients, he suggested that her parents drive her to University Hospital in the middle of the night, believing that the hospital would not refuse admission to an active polio patient under those conditions. Her physician was correct: she was admitted.<sup>73</sup> Some of these long journeys to hospitals over rough roads must have been painful, given the advancing paralysis, pain, and acute sensitivity to touch that often accompanied a serious case.<sup>74</sup> As late as 1940, physicians were administering the convalescent serum, although its value in reducing paralysis was debatable.<sup>75</sup> The practice probably persisted because of the strong desire to do *something*, even if the chances of success were slight. Sometimes the often-painful spinal tap was done to confirm the diagnosis of infantile paralysis.<sup>76</sup> Then the patient was typically put to bed in isolation, with complete bed rest. Unless there was respiratory distress requiring a respirator, the patient was immobilized to prevent deforming contractures. Some were placed on a canvas-covered frame, while others were immobilized using casts or splints. By whatever method, they might remain immobilized for as long as nine months before any physical therapy was administered.<sup>77</sup>

After 1940, the methods of Elizabeth Kenny were frequently employed, at least by physicians who were persuaded of the value of her treatments. Although almost all who underwent the Kenny treatments testified to their value in recovering from polio, the experience of the treatments themselves could be quite painful. Robert Gurney remembered being one of her first American patients, in part because he was so

71. Brow, "Memories" (n. 66).

72. Mrs. W. S. Carrick to FDR, 31 December 1943, PPF 50.

73. Teders in Sass, *Polio's Legacy* (n. 62), pp. 194.

74. Philip Lewin warned against transporting polio patients unnecessarily because of the pain it caused: *Infantile Paralysis* (n. 16), pp. 117–18.

75. Charles E. Bird to FDR, 26 October 1944, PPF 50; A. J. Schmidt to FDR, 12 January 1937, PPF 50; Owen in Sass, *Polio's Legacy* (n. 62), p. 30.

76. Teders in Sass, *Polio's Legacy* (n. 62), p. 194.

77. Owen in *ibid.*, p. 32; Brow, "Memories" (n. 66).

extensively paralyzed that it was thought she could do little harm. As she began to move the paralyzed muscles he couldn't help "crying from the pain."<sup>78</sup> Millie Teders also recalled that "the stretching was quite painful," but the wet wool hot packs that were changed every thirty to forty-five minutes in the early days of treatment were more welcome because they quickly relaxed the muscles and reduced the pain.<sup>79</sup> In some cases, like that of Robert Gurney, the patient could become a site of conflict regarding treatment. Gurney's physician insisted on splinting his patient to immobilize his limbs; when Kenny returned to administer her next treatment, she cut the young physician's splints off and threw them on the floor. In this case, at least, Kenny won: the splints were never replaced.<sup>80</sup> Those who had the Kenny treatment were unstinting in their praise of her results. Polio patients who wrote Roosevelt portrayed her as a miracle worker: "We are getting the Sister Kenny treatment for our illness and there hasn't been a patient in the 1943 epidemic that did not walk out";<sup>81</sup> "my wife was given the Kenny treatment and is home now nearly as good as new."<sup>82</sup>

Although many physicians considered Elizabeth Kenny's methods unorthodox, they could seem positively traditional next to some of the other treatments tried. Some polio patients were never taken to the hospital, but were treated at home. Although in one case the reason for avoiding hospitalization may have been the parents' Christian Science faith, in the others the family physicians apparently felt there was no need to hospitalize the child; he or she could be treated as well at home. The mothers of Charles A. Stone and Bill Van Cleve even developed methods of treatment that approximated the Kenny method.<sup>83</sup> Some patients relied on chiropractors to massage tight muscles and prescribe exercises, apparently with some success.<sup>84</sup> But chiropractors were not the only unorthodox healers consulted: Don Kirkendall's mother took him both to orthodox surgeons and to untrained farmers who were "bone-setters" in rural South Dakota; their "firm massaging hands strengthened long unused muscles," and Kirkendall was convinced that their treat-

78. Robert Gurney in Sass, *Polio's Legacy* (n. 62), pp. 23–25; quotation on p. 24.

79. Teders in *ibid.*, p. 195. See also Gurney in *ibid.*, p. 25.

80. Gurney in *ibid.*, pp. 23–25.

81. Larry Nixon to FDR, 23 January 1944, PPF 50.

82. Laurence W. Roof to FDR, January 1944, PPF 50. See also Nancy Jane Buser to FDR, 7 July 1944, PPF 50; Herbert Chapman to FDR, 20 January 1944, PPF 50.

83. Stone [1930] in Sass, *Polio's Legacy* (n. 62), pp. 176–77; Bill Van Cleve [1935] in *ibid.*, pp. 184–85; Dorrie Getchell in *ibid.*, pp. 205, 206; and Jack Dominik in *ibid.*, p. 172.

84. Ruth Ruppelt to FDR, 29 January 1940, PPF 50; Dr. Wallace J. Smith [chiropractor] to FDR, 27 January 1934, PPF 334.

ments enabled him to sit unaided.<sup>85</sup> Mrs. Kirkendall was apparently willing to try anything if it might help; on the advice of a fortune-teller, she rubbed her son's "entire body with salad oil every single night."<sup>86</sup> Other parents also resorted to strange medicines in hopes of bringing about a recovery. Jack Dominik, who was treated at home, recalls being rubbed with goose grease and a yellowish medicine. He also received a daily shot glass of a "particularly vile tasting" liquid that his parents had purchased, probably from a door-to-door salesman, for \$300—a substantial sum in the late twenties.<sup>87</sup> Given the inability of physicians and surgeons to halt the course of the disease or, in many cases, to reverse the muscle weakness and paralysis, it is not surprising that parents turned to any treatment that promised a fuller recovery.

The costs of polio were not only physical ones. Polio care, both acute and rehabilitative, was expensive, and during the Depression it was beyond the means of many families. The initial hospitalization for the acute phase might last for several weeks, to be followed by months—in some cases, years—of rehabilitative hospitalization. Even when the patient was discharged, there were continuing expenses for physicians' visits, for braces, canes, crutches, and wheelchairs, and for orthopedic surgery. Henry Kessler observed in 1935 that "the social cost of disability comprises two items: (1) the loss of earning power and general social and economic effectiveness; and (2) the actual expenditures made for maintenance, care, etc. When adequate provision for care, rehabilitation, and placement of disabled persons is not provided by the government, those persons become dependent upon relatives or charity."<sup>88</sup> Three contemporary sources suggest a cost of two to three thousand dollars for the first year of treatment; beyond that, one family initially spent \$150 and later \$75 per month for continuing treatments.<sup>89</sup> Few families in the period had hospitalization insurance. In 1939, only 6% of the population was covered by private health insurance, although that rose steadily to 24% in 1945.<sup>90</sup> When the median annual wage in 1940 was \$877 and only 3.7% of the population earned \$3,000 or more, these costs were clearly beyond

85. Mary Phraner Warren and Don Kirkendall, *Bottom High to the Crowd* (New York: Walker, 1973), p. 50.

86. *Ibid.*, p. 44. Kirkendall was also treated by orthodox physicians.

87. Dominik in Sass, *Polio's Legacy* (n. 62), p. 172. Dominik also had two operations performed by regular physicians.

88. Kessler, *Crippled* (n. 40), p. 43.

89. Davis, "Home Chart" (n. 15), p. 41; "My Son—Handicapped?" (n. 54), p. 96; Berg, *Challenge* (n. 36), pp. 155–56.

90. Census Bureau, *Historical Statistics* (n. 13), 1: 82.

the financial ability of many families.<sup>91</sup> The Depression of the thirties only exacerbated the financial distress. Some aid was available through Shrine hospitals, Crippled Children's Societies, and local and state governments. However, Kessler's survey of resources revealed that only twenty-one of the forty-eight states adequately met the needs of crippled children.<sup>92</sup> The establishment of the National Foundation for Infantile Paralysis (NFIP) in 1938, with its goal of providing adequate care to all polio victims who needed treatment, proved to be a financial godsend to many. Richard Carter estimated that from 1938 to 1960 the NFIP spent "\$315 million on medical, hospital, nursing, and rehabilitative care for 325,000 polio sufferers."<sup>93</sup> By the early forties, many victims and their families were gratefully receiving the assistance of the National Foundation. However, throughout this period, the twin economic costs of polio—the costs of recovery and rehabilitation, and the costs in lost income—remained substantial.

Although the cost of care does not seem to have been a barrier to medical treatment during the acute phase, it could put recommended rehabilitative treatments out of the reach of some patients. Many parents sacrificed and cut corners to provide the recommended care and assistive devices. Lewis Stratton wrote Roosevelt: "We had a nice little piece of money once, ready to build and furnish everything and pay cash. Then my boy took sick with infantile and we spent the whole thing, but I never begrudged one penny."<sup>94</sup> Laurence Roof, a soldier whose wife contracted polio, wrote: "I was lucky, I had a little money saved and believe I can handle the hospital and doctor bills eventually."<sup>95</sup> Other parents found it more difficult to pay the bills. Millie Teders recalled the financial and psychological impact of her illness on her father, who had a small farm: "He was a very hardworking, proud man, and he had to beg for money from the county to take care of me and pay the hospital bills. He spent years paying the county back by cutting brush along roads and under telephone lines. . . . He would never accept charity without paying it back."<sup>96</sup> Some parents simply found it impossible to pay for needed

91. Bureau of the Census, *Sixteenth Census of the United States: Population: The Labor Force (Sample Statistics): Wage or Salary Income in 1939* (Washington, D.C.: Government Printing Office, 1943), p. 5.

92. Kessler, *Crippled* (n. 40), p. 256.

93. Richard Carter, *The Gentle Legions* (Garden City, N.Y.: Doubleday, 1961), p. 95.

94. Lewis Stratton to FDR, 22 January 1934, PPF 50.

95. Laurence W. Roof to FDR, January 1944, PPF 50. See also Irene B. Gilbert to FDR, 23 October 1943, PPF 50.

96. Teders in Sass, *Polio's Legacy* (n. 62), pp. 195–96.

treatments. Mrs. A. Englehardt wrote Roosevelt that her husband was unemployed and worked only four days a month, bringing home \$37.55 for a family of six; her son could not get “the extra treatments that he requires . . . special care for our boy at present must be forgotten.”<sup>97</sup> T. E. McDonnell told Mrs. Roosevelt about his niece, whose parents could once afford specialists but who in 1934 found themselves in circumstances that “do not permit a needed operation” to correct her poor balance.<sup>98</sup>

In addition to the costs of treatment and rehabilitation, polio often impaired the ability of family members to earn an income. Wilbert Newton was a thirty-five-year-old Wisconsin farmer with a wife and four children when polio paralyzed his legs and right arm; because he could not work, the family soon lost the large farm and were “now trying to eke out an existence on a small farm of twenty-five acres, with the help of some sort of small pension given through the State of Wisconsin, and the assistance of his relatives, who are also badly bent by depression.”<sup>99</sup> Constance Cohen, who was bedridden because of polio, described for Roosevelt how her physician husband lost opportunities for a better-paying government job because he could not leave her alone all day to take the necessary examinations; further, many of her husband’s private patients could no longer pay for his services because of the Depression.<sup>100</sup>

Even before the National Foundation for Infantile Paralysis began its programs of assistance in the late thirties, there were some sources of aid for polio victims and their families. As in the case of Millie Teders cited above, county and local governments had some funds to cover charitable cases, although the cost to family and individual pride could be high. The hospitals run by the Shriners paid the cost of care for those admitted.<sup>101</sup> In some states, families on welfare found that the state picked up the cost of care and treatment for polio patients.<sup>102</sup> The amount and kind of state aid could vary tremendously, from barely adequate to quite generous. Bill Van Cleve discovered during the forties that the New Jersey Department of Vocational Rehabilitation would pay for him to attend Rutgers University so he would be employable, and he felt that

97. Mrs. A. Englehardt to FDR, 20 November 1933, PPF 50.

98. T. E. McDonnell to Mrs. Roosevelt, 23 December 1934, PPF 50. See also James Eaton to FDR, 3 February 1938, PPF 50.

99. William J. Cleary to FDR, 22 July 1933, PPF 334.

100. Constance Ella Cohen to FDR, 27 December 1933, PPF 50.

101. Luella Probber to FDR, 14 December 1934, PPF 50.

102. Jerry Ide and Mrs. Wilbert Ide to FDR, 25 January 1935, PPF 50.

this state support was more generous than the G.I. Bill.<sup>103</sup> His story, however, was unusual for this period.

By the early forties, parents and polio victims were writing to Roosevelt expressing their gratitude for his role in establishing the March of Dimes to provide financial support for the stricken. For many, the National Foundation's assistance meant the difference between no treatment and treatment. For example, Mr. and Mrs. Glenn Pfeifle, whose five-year-old daughter had recently been diagnosed, wrote that they appreciated "the wonderful care being given her through the polio foundation. . . . Without this help we wouldn't be in a position to give her the care that the foundation is doing."<sup>104</sup> Individuals in all social, racial, and economic groups appreciated the NFIP's assistance. Sadie Reed, who described herself as "a little colored girl" of fifteen, thanked Roosevelt for making it possible for her to have crutches and the opportunity to go to school while in the hospital: "I feel that the March of Dimes have made all of this possible."<sup>105</sup> For those families with more than one case of infantile paralysis, the March of Dimes proved particularly valuable. Three members of the Grossman family contracted polio: the mother, a son, and a daughter. When the daughter wrote Roosevelt six months later, the mother had died, the son still slept in an iron lung, and the writer was learning to walk again. She was grateful for all that the NFIP had done: "When one has the disease, all there is to do is pray. Through the March of Dimes, God answers it. The March of Dimes and God go together, hand in hand."<sup>106</sup> For families worried about how to pay for hospitalization and rehabilitation, the NFIP's offer to pay the costs was a godsend.

Physical recovery through therapy, bracing, or surgery was only part of the rehabilitation of the polio patient. Many polio survivors faced the equally difficult psychological challenge of coming to terms with their residual disability and the social stigmatization endured by those who were crippled or handicapped. Medical and rehabilitation authorities recognized the important role that psychosocial factors played in the recovery of their patients. Henry Kessler's survey of resources for the handicapped uncovered significant prejudice against the "crippled, deformed and disabled,"<sup>107</sup> in spite of the ability of modern medicine to minimize or compensate for physical handicaps. He concluded that "the repugnance and distaste with which the cripple has been regarded

103. Van Cleve in Sass, *Polio's Legacy* (n. 62), pp. 187–88.

104. Mr. and Mrs. Glenn C. Pfeifle to FDR, 15 September 1941, PPF 50.

105. Sadie Louise Reed to FDR, 25 February 1944, PPF 50.

106. Vera Jean Grossman to FDR, 23 January 1945, PPF 50.

107. Kessler, *Crippled* (n. 40), p. 13.

throughout history still prevail. . . . The social aversion to the cripple must be overcome and the disabled person must be brought out of his timidity and retreat."<sup>108</sup>

### “More Good Than a Gallon of Medicine”: FDR as Triumphant Symbol

The experience of polio could be isolating, alienating, and depressing. To gain the strength to confront and possibly overcome these psychological barriers, many polio patients and their families turned to the example of Franklin Roosevelt. The men, women, and children who wrote to FDR were often acutely aware of their difference and very sensitive to the stares, unkind comments, unease, and outright hostility of the able-bodied. These polio survivors confided to the president their anxiety about their appearance, their self-pity and lack of confidence, their frustration at not being able to keep up with peers, and their pain in the face of taunts.

The braces and splints worn by polio survivors to support their bodies marked them as cripples. While family and close friends soon became accustomed to the deformed bodies and the bracing, going out in public invariably provoked curious stares. Geraldine Ballou wrote Roosevelt for encouragement in dealing with her sensitivity to the stares and comments she experienced when she returned to college in her airplane splint. She had been accustomed “to having only a few familiar faces around”; when, instead, she found herself “surrounded by so many ‘interested strangers’ on campus,” she became “unduly sensitive.”<sup>109</sup> Self-conscious about their appearance and reluctant to endure the looks and taunts, others became prisoners in their own homes or gave up hopes of college or employment. Lillian Leggett wrote that her seventeen-year-old grandson had given up his dreams of college because of “his self-consciousness in regard to his arm,” which had been paralyzed by polio.<sup>110</sup> Even neighborhood playmates could pose a challenge. Donald Rick’s withered leg made him “so sensitive about his being ‘different,’” that rather than watching the neighborhood games from the sidelines he only wanted “to hide at home.”<sup>111</sup> The stigma of being a cripple was, in some cases, more paralyzing than the polio itself.

Cruel taunts sometimes accompanied the stares of strangers. To be called a cripple or a sissy because one could not compete at work or play

108. *Ibid.*, p. 22.

109. Geraldine Ballou to FDR, 24 November 1939, PPF 50.

110. Lillian Leggett to FDR, 30 January 1933, PPF 50.

111. Mrs. A. A. M. to FDR, 14 November 1942, PPF 50.

was deeply upsetting. Harry McKnight sought reassurance from FDR that he was manly in spite of the polio: "I can't play a good game of ball, etc., like the other boys, and they say that I'm a sissy and so forth."<sup>112</sup> The taunts were sometimes directed at family members as well as at the polio victim. Mrs. Harold Thomas feared both for her husband, who had polio at thirty-nine and walked with a limp, and for her ten-year-old son. Her husband was often "reminded" of his disability "in such a cruel way."<sup>113</sup> But she was even more concerned about her son, who was continually getting into "scrapes" because "children & grown ups tell him his dad is nothing but a cripple and he resents it."<sup>114</sup> Words like "cripple" wounded, and the writers hoped that an encouraging word from Roosevelt would lessen the sting.

These writers also testified to the difficulty of finding and keeping a job, a task made even more difficult by the Depression. Since polio impairs motor skills but not the intellect, sedentary jobs were theoretically open to those who were not totally disabled. The fear of rejection, however, kept some writers from even attempting to find employment. Edna Gnaizda, whose right arm was paralyzed, was afraid to begin library school: "I fear that even after I can qualify I will not be accepted because of my handicap. And so it is in every field I contemplate entering. With competition as great as it is today, the physically superior have the advantage."<sup>115</sup> A young Baltimore man, who needed crutches, became depressed when he tried to find work only to discover that "the world has no place for a cripple."<sup>116</sup> Roosevelt's success in the world of work inspired older polio victims, but these ordinary men and women could not so easily hide or manipulate their disability, and joblessness remained a serious problem.

Depression and self-pity over a life irrevocably altered runs through these letters. Discouragement and depression kept some polio survivors from working hard at rehabilitation, or from facing the challenge of securing an education and finding useful work. Positive thoughts, not self-pitying ones, were more useful in overcoming physical disabilities—but the will to think positively could be elusive. Edna Gnaizda was not only concerned about the monetary consequences of unemployment: "More important than the money is the fear I have of losing faith in myself, and when that is gone, what else is there!"<sup>117</sup> Hulda Nierman,

112. Harry F. McKnight to FDR, 30 January 1945, PPF 50.

113. Mrs. Harold C. Thomas to FDR, [February 1944], PPF 50.

114. *Ibid.*

115. Edna J. Gnaizda to FDR, 12 April 1934, PPF 50.

116. Buelah Rucker to FDR, 10 October 1934, PPF 50.

117. Edna J. Gnaizda to FDR, 12 April 1934, PPF 50.

writing seven years after polio had left her wearing a back brace, described her struggle to remain upbeat: “Ever since I became ill the fact that practically everyone feels sorry for me has been a great hurt. Therefore it takes tremendous force of will for me to refrain from self-pity.”<sup>118</sup> F. Carey Rossett wrote on behalf of his fourteen-year-old cousin, who, shortly after finishing a biography of FDR, contracted his own case of polio: “He appears frightfully nervous and very preoccupied. In fact, he was for a time so nervous that he couldn’t even hold his food down, because of this fact he has now developed a decided disgust for the disease and its effects.”<sup>119</sup> Facing mental paralysis, the writers took inspiration from Roosevelt’s achievements to spur their own renewed efforts.

Writing the president was not undertaken lightly. Writers often acknowledged that Roosevelt had more pressing duties than writing to polio victims. Mildred Taylor began her 1940 letter on behalf of a friend by noting the press of international affairs: “With human life so cheap in Europe, and with your determination and absorption in preserving it in the western hemisphere, would it be too much to ask that you take a moment from official duties and give a word of faith and cheer to an infantile paralysis victim.”<sup>120</sup> For parents of polio victims, the disease represented a family disaster that ranked with war. Ethel Currier suggested as much when she admitted that “one little girl isn’t very important in a whole world at war—but she is *our* little girl—and we love her so very much.”<sup>121</sup> Similarly, David Glushak conceded that “it seems rather silly in the midst of the world cataclysm, when millions of lives are lost, to bother you and call your attention to a little bit of a small family worry.”<sup>122</sup> News accounts of FDR’s letters to other polio sufferers inspired still more letters. Nora Kelly admitted that “I never thought you could ever be bothered with letters from simple folk like ourselves, until I read the other day, where you write to victims of infantile paralysis.”<sup>123</sup> Roosevelt’s uncanny ability to project a human touch encouraged letters. Buelah Rucker all but blamed Roosevelt himself for the letter she wrote on behalf of a friend: “I realize that you are the busiest man in our country, also that I am asking a great deal in this letter, but really, if you don’t want people to bring their troubles to you, you should not be such a very human person with such a friendly smile—you invite confidence.”<sup>124</sup>

118. Hulda Nierman to FDR, 8 June 1933, PPF 50.

119. F. Carey Rossett to FDR, January 1934, PPF 50.

120. Mildred Taylor to FDR, 3 July 1940, PPF 50.

121. Ethel Wilson Currier to FDR, 2 June 1943, PPF 50.

122. David Glushak to FDR, 29 September 1944, PPF 50.

123. Nora Kelly to FDR, 30 October 1935, PPF 50.

124. Buelah Rucker to FDR, 10 October 1934, PPF 50.

A diagnosis of polio was frightening to hear, for it called up images of life as a useless cripple. Parents, friends, and occasionally victims themselves wrote in the terrible weeks following the diagnosis seeking encouragement and assurance that Roosevelt's example could be emulated by those less fortunately situated. Marian Goldfarb thought a letter from the president would do a nine-year-old boy "more good than a gallon of medicine, as you are his idol."<sup>125</sup> Bertha Huse sought courage to help her eight-year-old son face life in braces: "Every time I hear your voice on the radio and read about your attitude toward physical handicaps—that they don't amount to a 'ohill of beans' I am strengthened and my courage is renewed. . . . your life is, in a way an answer to my prayers. It is a daily inspiration and source of help and strength."<sup>126</sup> Mrs. J. Hermann pleaded, "Please Mr President a word from you to my boy will go a long way to give him new strength & courage to go on."<sup>127</sup> A month after being stricken, Ivy James, who described herself as "an active business woman," wrote FDR for inspiration: "As I lie here I try so hard to keep the 'Smile' on my face for which you are famous, but out of your busy world affairs, could I so much as hope for a word of encouragement from the President of our U.S.A.? It would be a life long appreciation and inspire me to new courage."<sup>128</sup> Twelve-year-old Danail Berg had already spent six months in a hospital when he wrote Roosevelt: "I don't know when I shall be able to walk again, but I am not giving up hope. You had paralysis but that didn't stop you from progressing. You now hold the highest office in the United States. That took fight and courage. I shan't be President but I will hold a good position."<sup>129</sup>

For some writers, the physical artifact of the letter itself was almost as important as the message it contained. Fifteen-year-old Kenneth Brahler was tired of the taunts he experienced at school. He wanted not only encouragement from Roosevelt but also the letter itself: "If I had a few words from you in a letter to show my classmates it would give me at lest [*sic*] one thing moor [*sic*] then they have which would mean so much to me."<sup>130</sup> Louise Curtis wrote Eleanor Roosevelt on behalf of herself and her son, who had had polio twenty years previously. She desired only a signature of FDR "to frame, to be tangeable [*sic*] proof of his power and

125. Marian Goldfarb to FDR, 6 March 1935, PPF 50.

126. Bertha C. Huse to FDR, 2 November 1933, PPF 50.

127. Mrs. J. Hermann to FDR, 29 September 1935, PPF 50.

128. Ivy O. James to FDR, 9 March 1934, PPF 50.

129. Danail Berg to FDR, [December 1933], PPF 50.

130. Kenneth Brahler to FDR, 7 March 1936, PPF 50.

loving kindness. . . . It will double our assurance, and be a Talisman."<sup>131</sup> In letters like these, Roosevelt's words and even signature take on an almost magical quality.

Roosevelt's difficult rehabilitation and ultimate failure to regain full use of his legs were unknown to these writers. Facing their own bleak futures, they drew strength from the public posture that FDR had, through hard work, recovered from polio and gone on to great things. They were not seeking an accurate account of Roosevelt's own struggle with polio, but solace and reassurance that life was still worth living. Whatever the reality, the perception of Roosevelt's success gave them courage.

It is hard to know how long the positive effect of Roosevelt's letter lasted. Rehabilitation was long and arduous, sometimes lasting two years or more, and when it ended the patient was often still disabled. That FDR's letters had only a temporary effect is suggested by several instances where a second or even third letter was requested. Nine months after Sally Currier received a "most encouraging letter" from Roosevelt, she had again become depressed when hospitalized for an indefinite stay.<sup>132</sup> Her mother again wrote FDR because she felt that "another encouraging word from you . . . would do a great deal more than several doctors combined."<sup>133</sup> Others simply promised to have the letter framed so they could draw strength from it when frustration and depression returned.<sup>134</sup>

Roosevelt's replies were usually brief, only a line or two of encouragement. For example, while at Warm Springs he wrote to Burton Harris: "I am in receipt of your letter of November twenty-fifth and am very sorry indeed to learn of your illness. You are making a brave fight for recovery and with this fine courage and determination you are bound to win."<sup>135</sup> To Robert Hirn, Roosevelt replied with his customary suggestion to follow the physician's orders: "Your mother has told me that you are suffering with Infantile Paralysis. By patience and perseverance in carrying out your doctor's instructions I am sure that you will in time win through to full recovery. Best wishes to you."<sup>136</sup> In most letters, he held out hope for full recovery, as he did in writing seventeen-year-old Arthur Hermann who was depressed over his inability to return to school: "Your mother tells me that you have infantile paralysis. I do hope that you will

131. Mrs. Louise Curtis to Eleanor Roosevelt, [January 1939], PPF 50.

132. Ethel Wilson Currier to FDR, 2 June 1943, PPF 50.

133. *Ibid.*

134. Ernest Seymour to FDR, 28 December 1933, PPF 50.

135. FDR to Burton Lasker Harris, 28 November 1933, PPF 50.

136. FDR to Robert Hirn, 5 February 1934, PPF 50.

continue to improve and that you will soon be entirely recovered.”<sup>137</sup> He avoided making any suggestions or recommendations concerning a particular case. As he replied to Edna Fulton, who wrote seeking advice about her sixteen-year-old daughter who was resisting prescribed exercises: “Cases of this kind appeal strongly to my sympathies and the best advice I can give is that your daughter carry out the instructions of her physician. He knows what is best in her case and I think she should follow the exercises prescribed by him.”<sup>138</sup> Roosevelt’s brief notes usually urged the recipient to work hard, to follow doctor’s orders, and to have courage. In these encouraging notes, he usually implied that if his correspondents followed orders they, too, could win a victory over polio.

Whenever Roosevelt was too busy to respond to the polio letters, one of his secretaries—particularly Marguerite (Missy) Le Hand, Grace Tully, or Stephen Early—responded. They wrote in a way that suggested that the president had seen the original letter. For example, Le Hand replied to the letter of Geraldine Ballou cited above: “The President has asked me to thank you sincerely for the kind things you say about him in your recent letter, which he has read with sympathetic interest. He is glad to know that you are making such fine progress and hopes that you will let nothing discourage you in your efforts for improvement.”<sup>139</sup> Evidence suggests that during World War II the White House secretarial pool prepared the letters even when one of the secretaries signed them: still attached to a 1944 letter of David Glushak requesting a note for his fourteen-year-old daughter is a routing slip with the notation “The usual note for Miss Tully.”<sup>140</sup> In this fashion, then, the White House maintained the belief that Roosevelt saw all the letters that came regarding polio victims without unduly burdening him.<sup>141</sup>

137. FDR to Arthur Hermann, 2 November 1935, PPF 50.

138. Edna Meyers Fulton to FDR, 4 July 1933; FDR to Mrs. Ernest J. Fulton, 13 July 1933, PPF 50.

139. Geraldine M. Ballou to FDR, 24 November 1939, PPF 50; M. A. Le Hand to Geraldine M. Ballou, 30 November 1939, PPF 50.

140. David A. Glushak to FDR, 29 September 1944, PPF 50; Grace Tully to Butch Glushak, 3 October 1944, PPF 50.

141. Grace Tully discussed the way in which Roosevelt handled his mail in *F.D.R.: My Boss* (New York: Scribner, 1949), pp. 79–83. She noted that “in some cases he merely asked me to write an appropriate reply for his signature” (p. 81). Three contemporary descriptions of White House mail suggest that in the thirties the White House received more than six thousand pieces of mail each day, and between two hundred and five hundred letters made it to the president’s desk every day; 90 percent of these were answered by one of the secretaries. See Louis McHenry Howe, “The President’s Mail Bag!” *Amer. Mag.*, June 1934, pp. 22–23, 118–20; “F.D.R.’s Day,” *Lit. Digest*, 6 February 1937, pp. 6–7; “Hotel Delivery,” *ibid.*, 6 March 1937, pp. 6–7.

The White House staff also attempted, not very successfully, to limit the number of polio letters they received. Grace Tully put the problem succinctly when she suggested a presidential response to Dick Curlee: "I imagine we mark these letters personal because if it is given out we will have hundreds of requests from other people for children who have been just as badly hit."<sup>142</sup> The staff was not always successful in preventing publicity about Roosevelt's letters. The publication of a presidential letter to nurses who had contracted polio during the 1935 Los Angeles epidemic prompted a request on behalf of Orange County nurses. Roosevelt wrote the Orange County nurses, but Stephen Early, assistant secretary to the president, asked the physician who had made the request to keep the president's letter confidential:

I am sure you will understand that the President receives a large number of requests for similar greetings, in fact so great a number that he cannot possibly answer all of them, or many of them. He has, however, complied with your request and I am sure you will understand my motive when I ask you to regard the letter from the President as personal to yourself and to the nurses whom the President greets through you. If the letter should find publication it would inspire a great number of similar requests which would be embarrassing.<sup>143</sup>

The challenge for the White House staff was to protect the president from an even greater flood of letters, yet not to undermine the faith that polio patients and their families had in the compassion of Roosevelt for individuals with polio, or in his power to inspire them.

Roosevelt's replies emphasized the importance of the "right attitude" if polio's legacies were to be overcome. He underscored the importance of will power and determination against physical disabilities. As he often said, will power would enable the individual "to win through to victory." He always implied that victory was possible, without specifying precisely what victory meant in any individual case. He also stressed the need to follow the physician's orders, especially with regard to exercise: that discipline, however painful, was necessary if any kind of victory were to be possible. Roosevelt at least implicitly acknowledged that in his own case it was will power and exercise that had enabled him to defeat polio. If he could do it, others could attempt it as well. He was in no position to prescribe the physical rehabilitation of polio victims—but he could, and

142. Grace G. Tully to William D. Hassett, 18 October 1944, PPF 50. See also R. B. to Mr. McIntyre, 15 June 1937, PPF 50; M. H. McIntyre to Jim Townsend, 16 January 1937, PPF 50.

143. Stephen Early to Dr. H. E. Zaiser, 26 December 1935, PPF 334. See also H. E. Zaiser to FDR, 17 December 1935, PPF 334; FDR to H. E. Zaiser, 26 December 1935, PPF 334.

did, provide the mental tonic necessary to encourage polio patients to persevere in the lengthy and arduous task of recovery and rehabilitation.

## Conclusion

In the various polio narratives of the thirties and early forties there emerges a more complex picture of the polio experience than that encompassed in previous accounts. To be sure, the drama of Roosevelt's case, the stories of Warm Springs and the National Foundation for Infantile Paralysis, and Sister Kenny's crusade are an important part of the history of the polio epidemics. Even though Roosevelt's achievements inspired many polio survivors, his case, because of his wealth and positions as governor and president, was atypical. Warm Springs did important work in rehabilitating polio patients in both body and spirit, and in developing new approaches to polio rehabilitation. Most polio patients could not, however, afford to travel to Warm Springs for after-care, and they thus benefited only indirectly, if at all, from the slow diffusion of medical techniques and attitudes. In considering the impact of the National Foundation in this period, care must be taken not to read back into the thirties and early forties the post-World War II dominance of the National Foundation in shaping polio research, care, and attitudes. From its beginning in 1938, the NFIP made grants for scientific research and paid for some polio care and rehabilitation. In this period, the scientific research had little impact on the incidence or severity of the disease, and many, if not most, polio patients and their families still had to rely on family resources or local charities to finance care, or do without. Beginning in the early 1940s, Sister Kenny's treatments did revolutionize polio aftercare, but access to her treatments was usually dependent upon their availability and the confidence one's physician had in what were then unorthodox and controversial therapies. For individual polio survivors progress was incremental and often limited—the ability to breathe outside an iron lung, to sit unassisted, to take the first halting steps encased in heavy metal and leather braces, to confront the often-hostile stares of strangers. In focusing on the larger developments in the history of poliomyelitis, historians have largely overlooked the daily struggles of those struck down by the virus.

Each case of polio was different, and none conformed exactly to the paradigm cases discussed in the medical literature. The initial diagnosis might be wrong or late. The survivor might receive inadequate or unconventional treatment, or no treatment whatsoever. When rehabilitation and surgery had been completed, survivors might find themselves still significantly crippled and without good opportunities for education or

employment. Many found the effort to recover from the psychological impact of the disease to be as significant a challenge as recovery from the physical effects. Often stigmatized as cripples, they struggled to overcome their own feelings of inferiority and difference, and to secure the strength and self-confidence necessary to complete their physical rehabilitation and to confront the often-hostile world outside the home and hospital. While they could not control the damage left by the virus or the attitudes of family, friends, playmates, co-workers, and strangers, polio survivors did have some control over how they regarded their own disabilities. Here Roosevelt's example, even though manipulated, proved inspirational. Writing to the president became a way to share some of the power of his office and to put aside, for the moment at least, the crippling stigma of polio. The shared experience of polio validated the writers' own struggle with physical deformity and limitation. A letter from Roosevelt changed nothing, and changed everything. However briefly, the recipient was distinguished for what he had, not for what was missing.