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The “White Plague” and Color: Children, Race, and Tuberculosis in Virginia 1900-1935

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“...Tuberculosis cannot be eradicated if we do not begin with the child.” (Knopf, 1907)

On February 4, 2009 when President Obama signed the Children's Health Insurance bill, legislation designed to provide health insurance for youngsters who did not qualify for Medicaid, the federal program for the nation's poorest children, he extolled: “Today, with one of the first bills I sign – reauthorizing the Children's Health Insurance Program – we fulfill one of the highest responsibilities we have: to ensure the health and well-being of our nation's children” (“Obama Signs Children's Health Insurance Bill,” 2009). Just a few days earlier, Governor Sarah Palin, who professed ideological divergence from the President on most issues throughout her vice-presidential candidacy in 2008, declared her commitment to children in her State of the State address to Alaska's citizens, affirming her vision of a “culture of life where every child is cherished and valued” (“State of the State Speech for Alaska,” 2009).

When it comes to providing a social safety net for children, Americans are unambivalent, at least rhetorically. There appears to be consensus that all children are owed a healthy and “good” childhood by society. But one of the United States' paradoxes, is that despite the florid rhetoric that suffuses public discourse about children and their well-being, millions of youngsters remain uninsured and even more are underinsured, meaning that their insurer does not pay for one or more services health care providers deem necessary (Kogan, Newacheck, Honberg, & Strickland, 2005).

As the hyperbole surrounding 2009 health care reform debates revealed, one of the nation's more vexing and enduring policy problems is whether, and if so, how much, health care should be provided to those who cannot afford to pay for it themselves. The fragmented nature of health care financing and delivery in this country has resulted in the lack of a coherent, unified approach to services. This is true for both children and adults but we profess a commitment to do otherwise for children. But the evidence suggests the nation falls far short of this goal. The health needs of indigent children, for example, are framed as a social welfare issue and are funded through need-based initiatives. As a result, these programs are often not designed to mesh with those of the health care delivery system and their interventions may or may not be grounded in evidence supporting “what works” in

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terms of reducing pediatric morbidity and mortality. Children whose parents are employed and eligible for benefits get health care according to the services dictated by their particular health plan. And those whose parents earn too much to qualify for Medicaid or the Children's Health Insurance Program, or who cannot or choose not to obtain health insurance, are entitled to nothing.

This historical research article describes nurses' efforts at early twentieth century pediatric tuberculosis (TB) prevention and treatment in one state, Virginia. What can history contribute to our understanding of twenty-first century children's health care? Why should pediatric nurses consider the local response to an infectious disease that afflicts few American children today? There are several reasons for doing so. First, much research on children's health lacks a meaningful historical dimension. But the values, norms, policies, and institutions that template pediatric nursing today are all predicated on decisions made in the past. As such, a better understanding of the negotiations and debates that shaped contemporary practice and policy can facilitate a more meaningful consideration of how best to deliver health care today and in the future. Given that a central nursing tenet for 2009 health care reform argues that patients are best served when nurses are at the forefront of health care, this case study is valuable because it demonstrates an instance in which they did so and highlights the intended and unintended consequences of their efforts.

Because of its prevalence in the early twentieth century, tuberculosis represents an ideal model to explore the ways that values and interests, often unacknowledged, determine societal responses to health care crises. Given the nation's diversity, and that the United States has chosen a political economy that values local and state autonomy at the expense of a muscular federal government, a local case study illuminates the ways in which health care policies are generated and services are actually delivered in ways that a national perspective cannot. Much like a century ago, we face health care disparities and struggle for how best to incorporate care for all. Virginia represents a useful case study not just because of the explicitly race- and class-based nature of children's health care in the early twentieth century, which was common throughout the United States, but because a great deal of documentary evidence germane to understanding this history has survived.¹

Tuberculosis in the Early Twentieth Century

Few diseases influenced American life as much as TB. Its popular designation, "The White Plague," reflected its cultural as well as demographic impact. Although Robert Koch demonstrated the bacterial etiology of tuberculosis in 1882, until antibiotic therapy arrived in the 1940s, a cure remained elusive. Treatment consisted largely of education to prevent the bacteria's spread, fresh air, sunlight, rest, and good nutrition with the intent, according to a well-known surgeon, to "fortify the entire resistive powers of the individual so that the assaults of the bacilli may be successfully repulsed" (Willard, 1910). Although tuberculosis reached more evenly across race and class in the nineteenth century, by 1900 the better nutrition, sanitation, and housing available to wealthier people, almost all of whom were white in Virginia, reduced their risk for the disease. As a result, TB and poverty became more closely linked.

¹This research drew on primary archival materials as well as secondary sources in order to examine the history of nurses and pediatric tuberculosis prevention in Virginia. After searching archival databases such as "Worldcat" and "JSTOR", the researchers traveled to repositories throughout Virginia to study these materials. The standard historiographic tools of internal and external criticism were used to ascertain reliability and validity.

The primary sources were subsequently analyzed in the context of the medical, social, political, and economic context in which events evolved and in conjunction with relevant secondary sources. The resulting final narrative was organized both chronologically and thematically.

Despite the fact that Virginia suffered less urban crowding than the northeast with its many congested cities, TB was certainly a major cause of morbidity and mortality in Virginia. In 1915, the newly founded Virginia State Tuberculosis Commission noted with alarm its estimation that more than twice as many people in the state died of TB as from typhoid, smallpox, measles, scarlet fever, diphtheria, whooping cough and malaria combined ((Knopf, 1922; “Report of the Tuberculosis Commission of the State of Virginia,” 1915). Of the 25 states contributing data to the federal government, only North Carolina (231 cases per 100,000 citizens), Kentucky (201), California (196.1), and Maryland (191.2) experienced higher death rates from TB than Virginia (184.4) (“Mortality Statistics,” 1915).

Tremendous disparities existed in death rates from TB in early twentieth century Virginia not just according to socioeconomic status, but also by race. As early as 1906, when Richmond and Norfolk, the state's largest cities, began tracking TB deaths, a necessity since no reliable statewide reporting mechanisms existed, officials in both cities recognized that the rate of death from TB was much greater in blacks than whites (“Virginia Tuberculosis Statistics,” 1908). In 1914, the first time the United States Census Bureau aggregated tuberculosis incidence data according to race, the mortality rate for pulmonary TB among Virginia's whites was 102 deaths per 100,000, whereas in those labeled “colored” the death rate was three times greater, 301.5 per 100,000.² That same year, Virginia public health officials estimated more than twice as many black youngsters under the age of 19 years died from TB than whites the same age. But Virginia actually compared relatively well to the national average. Nationwide, non-white youngsters between the ages of 5 and 14 years died from tuberculosis at a rate of 155 per 100,000, compared with 23 per 100,000 tuberculosis deaths for white children (“Mortality Statistics,” 1915).

Throughout the United States, apprehension regarding children and TB was a growing public health concern during the early decades of the twentieth century. In 1903, research indicated that most TB infection took place during the childhood years, a finding confirmed by the tuberculin screening test which first became available in 1908, which revealed that a large percentage of American children had been exposed to the bacillus (von Pirquet, 1908). Although many children harbored the infection for many years before becoming ill, and some never developed symptoms at all, when children did contract TB, many did get visibly sick.

The clinical manifestations of childhood infection usually varied considerably from those exhibited in the adult due to what scientists today believe to be age-related differences in immunologic response. Pulmonary TB, for example, was extremely rare in infants, who more commonly presented with meningitis or disseminated infection. Relative to adults, children were more at-risk for bony tuberculosis of the spine, also known as Pott's Disease, hip, or knee, which could cause crippling and other orthopedic disabilities (Connolly, 2008). Moreover, a significant percentage of children with TB were not infected with the form of the bacteria most commonly associated with the disease in the United States today, *M. tuberculosis*, but instead had contracted the bovine form of the bacteria through drinking infected milk in an era before milk pasteurization became common (Steele, 2000).

Public Health Responses to Tuberculosis in Virginia

Tuberculosis was intimately bound to the first 20th century efforts to improve Virginia's public health. As the South became more urban and industrialized, crowding and inadequate

²Consistent with historical research, this manuscript reports phenomena using language/descriptions the way in which historical actors employed or depicted them. This means that this paper contains language that is considered antiquated and perhaps even offensive to twenty-first century ears such as “crippled”, “colored”, or “disabled.”

sanitation became increasingly common. In the first decade of the 20th century, for example, Richmond's population density was the highest in the South (Green, 2003). Infectious diseases, including tuberculosis, thrived in the growing cities. Rural areas, many of them filled with impoverished families, did not fare much better.

Concerned Virginian reformers, most of whom were urban, white, and middle-class, identified with a national reform impulse, Progressivism. Progressivism flourished in the United States in the years between the depression of 1893 and World War I. This protean movement, responding to the rapid changes in American society, comprised a complex collection of social criticism, protest, unrest, restructuring, regulation, and social welfare activism. But there was also a strong regional character to reform. Although many Progressives in the northeast sought dramatic changes, such as an expansion of the role of government in American society or more rights for workers, Virginia's reformers usually pressed for reforms that presented little direct challenge to the state's cultural traditions of fiscal conservatism, localism, and individualism (Link, 1992). Paternalistic, "one part white supremacy and one part white responsibility," most Virginia reformers advocated for order and economic progress in ways that maintained the norms of segregation and the disenfranchisement of blacks (Smith, 2002).

No matter where their location, reformers rarely prioritized the needs of blacks in their communities. In Virginia, because public health reform was intricately bound to a value system that sought to reinforce the state's existing racial and class hierarchy, nurses, physicians, and others practiced within a framework that restricted their options. As a result, black activists, who, like their white counterparts, also hailed from middle-class origins, founded organizations through their churches, local women's clubs, or fraternal organizations. These groups sought to build health and social welfare institutions within their communities, address children's issues, and fight for social justice (Franklin, 1999; Higginbotham, 1993; Lasch-Quinn, 1993).

Segregation was prevalent in both the North and the South in the United States before World War II, although in the North, tradition, not law, defined the practice. Health care delivery was no exception: hospitals, tuberculosis sanatoria, and schools of nursing were as segregated as the rest of society (Gamble, 1995; Hine, 1989). In Virginia in 1918, for example, the state's General Assembly passed a tax to raise money for a new "white" sanatorium at the foothills of the Blue Ridge Mountains two miles from downtown Charlottesville. When it opened in 1920, it joined the state's two other sanatoria, Roanoke's Catawba sanatorium, founded in 1910 and also for whites, and Burkeville's Piedmont sanatorium for Virginia's "colored" tuberculosis sufferers, founded in 1917. Piedmont, received significantly less public support than Catawba or Blue Ridge. One of only four southern states with beds for black TB sufferers, it did, however, provide for the care of blacks in ways that other states did not (Gunn, 1922; Knopf, 1922).

Any black Virginian with TB who could afford to pay the two dollar a week fee was eligible for one of Piedmont's 80 beds. One of the reasons for justifying segregation was the belief on the part of many that blacks and whites were physiologically dissimilar to one another and that blacks inherited racial traits that resulted in biological and moral inferiority relative to whites. The faith in these differences not only justified the ongoing oppression of blacks, it also provided an argument for segregation (Dorr, 2006; Savitt, 1978). Bureaucratic inattention to tuberculosis in black Virginians was a fact of life and explicit attempts to prevent the spread of the disease in blacks were grounded in white beliefs that black's inattention to hygiene and cleanliness was responsible for their higher death rate. They were also motivated by fears of contracting TB from them. State Senator Julien Gunn admonished that TB in blacks needed to be addressed primarily because of their potential to infect

whites: “Negros wait on our tables, handle our food, both raw and cooked, nurse our children. When we protect them or cure them, we are doing as much for ourselves as we are for them.” (Gunn, 1922). One prominent Virginia pediatrician and member of the Board of Health, Lawrence Royster, called attention to the “menace of Negro tuberculosis,” and stated his belief that the majority of the cases of tuberculosis in white children which he had witnessed, had probably come from Negro servants (Royster, 1931).

Many of the early twentieth century antituberculosis initiatives designed by Virginians were led by, or crafted with heavy input from, public health nurses. As Lillian Wald's Henry Street Settlement on Manhattan's impoverished Lower East Side had demonstrated in the 1890s, addressing illness in its social and economic context, acknowledging the impact on health played by these variables on well-being, and partnering with local groups across race and class lines not only put these women at the vanguard of public health reform, it also improved the lives of individual disenfranchised families, black as well as white (Buhler-Wilkerson, 1993).

Richmond's “Nurses Settlement,” founded in 1900 to provide nursing care to the sick poor incorporated in 1902 as the Instructive Visiting Nurse Association (IVNA) with the explicit goal of bringing nursing care to people in their homes. The nurses themselves funded the operation, donating their own money as well as garnering support from private charities and the public health department. Not only did the IVNA care for patients regardless of their race, in 1913 they partnered with a reform-oriented group, the Council of Colored Women, to hire a black nurse who, of course, was only allowed to care for black patients. By so doing, they did integrate the IVNA but they also conveniently created a structure which minimized the need for white nurses to come into contact with black patients. The IVNA also expected the black community to contribute to the nurse's salary. At one point when Council of Colored Women could not raise the necessary funds, the IVNA dismissed the black nurse for ten days until the payment arrived. It is unclear what, if any, care black patients received during this period of time (Green, 2005; Hoffman, 2001; Meyer, 1915). In Norfolk, the King's Daughters Visiting Nurse program (a non-denominational Christian women's organization) also responded to the needs of black patients when, in 1910, they hired their first black nurse to care for “Negro women and children.” The perceived need was so great for the services of this nurse that another black nurse was hired within the first 3 months (Annual Report: City Union of the King's Daughters, 1910).

Since tuberculosis represented a major cause of morbidity and mortality, public health nurses threw themselves into designing systems of care to address the problem. In both Richmond and Norfolk, nurses from the visiting nurse programs were active in the establishment and staffing of the first TB clinics. One leading public health nurse, political activist, and great-grand daughter of Thomas Jefferson, Agnes Dillon Randolph, drew on her class connections to become Executive Secretary for the Virginia Tuberculosis Association and organizer of the tuberculosis bureau of the state Board of Health. Once ensconced in the position she capitalized on her role to lobby for a sanatorium for black TB sufferers. Unlike Royster and others, Randolph believed that blacks' high rates of TB morbidity and mortality were rooted in poverty and social conditions and not biology. Although she was not able to mitigate the fact that Piedmont, once founded, received less funding than the white sanatoria, she partnered with black Progressives in the Negro Organization Society to press for the sanatorium's founding. The Virginia State Board of Health, however, expected the Negro Organization Society to contribute significant financial support for Piedmont. (Piedmont Superintendents' Report, 1924).

Nonetheless, by the early 1920s. Virginia could boast an organized tuberculosis infrastructure, largely credited to the efforts of public health nurses such as Randolph. In

addition to the 80 sanatorium beds for blacks and 670 beds for whites at the three sanatoria, the state's 172 public health nurses managed dispensaries, tracked down and reported new cases of TB to the health department and visited the sick in their homes (Knopf, 1922; Sanatoriums in Virginia, n.d.)

Children and Tuberculosis in Virginia

By 1910, children's issues had become emblematic of the Progressive cause in Virginia just as they had nationally. Children represented a powerful unifying force; those who disagreed on disparate reform-related issues could almost always agree that children deserved an investment in their health and social welfare. As one pediatrician noted, "How vastly important is it then, that these young people, many of whom are destined to be the rulers of men, should be taught how to care first for their own health and second for that of the community." (Royster, 1904).

This child-saving consciousness led Virginia Progressives to successfully lobby for a variety of legislative improvements that benefited children in their state: improvement in the structure and environment of schools and construction of sanitary privies to either replace unsanitary outhouses or provide sanitary waste management to schools for the first time; free vaccinations as well as hearing and vision screening for poor children, and inspection of food and dairy products to prevent the spread of infected products such as milk from cows with tuberculosis ("The Statute Law of Virginia Relating to the Health of the People," 1908). Schools also became a major thrust of the campaign to provide tuberculosis-related health education. In Norfolk schools, for example, physicians and nurses not only inspected children for symptoms of tuberculosis, they lectured them on tuberculosis contagion, admonishing them to avoid spitting and cover their mouths with a handkerchief when they coughed. Officials hoped that children would take the information home and teach their parents and other family members better hygienic practices ("Public Schools," 1908). Lawrence Royster, a Norfolk pediatrician and later University of Virginia Medical School's first Chair of Pediatrics affirmed health care professionals' belief in health education in the schools: "In the introduction of the study of hygiene, properly taught, into our school systems lies, I believe, the keynote of success in securing and maintaining a sanitary condition of our centers of population." (Royster, 1904).

Public health nurses spearheaded many elements of the state's pediatric anti-tuberculosis campaign. Health camps, such as the one founded on the Virginia coast in 1909 by Norfolk's Visiting Nursing Service of the City Union of the King's Daughters strove to "guard...little children from becoming victims of this disease [tuberculosis]." (Norfolk City Union of the King's Daughters Annual Report, 1907) A few years later, Ethel Smith, the King's Daughters Visiting Nursing Director, convinced the organization to sponsor a pediatric clinic for poor youngsters, since children were frequent patients at the city tuberculosis clinic that the visiting nurses staffed (The Norfolk City Union of the King's Daughters 1897-1947-1947).

But public health nurses soon realized that there were few resources to offer children crippled by tuberculosis and they began organizing their efforts, both locally and nationally, to improve their care. Agnes Dillon Randolph, as noted, was in the vanguard of the national movement calling for greater investment in TB prevention and treatment in children. She wrote to Douglas C. McMurtrie of the *American Journal of Care for Cripples* in 1916 lamenting the fact that Virginia had identified 3,000 tubercular children and inadequate facilities for their care (Randolph, 1916).

At the local level in Richmond, Nannie Minor, the Richmond IVNA Nursing Director, convinced a local orthopedic surgeon, William Tate Graham to open a clinic devoted to children's care in 1917 (Adams, 1979; "History of the Beginning," 1924). The clinic

illuminated the overwhelming needs of Virginia's tubercular children. With significant support of Virginia's nurses, the state passed legislation in 1918 to provide state supported care for black and white indigent crippled children through the segregated hospitals at the Medical College of Virginia. Although many of these youngsters suffered from TB, others struggled with disabling conditions such as poliomyelitis (Report of the State Commissioner of Health to the Governor of Virginia, 1918).

Virginia's Institutions for Children with Tuberculosis

Virginia's initial legislative allocation was insufficient to meet the needs of all the crippled children. In response, a group of socially prominent Richmond men and women incorporated the Crippled Children's Hospital (CCH) in April, 1920. While not yet a physical structure, the CCH organization oversaw the care of children hospitalized for orthopedic conditions on pediatric wards in three general hospitals, their care supported by private donations and fundraising by both black and white voluntary agencies and churches (Adams, 2001). The white children were housed at either the Dooley or Memorial Hospitals (depending on their age) and the black children were housed at the St. Philip Hospital, the segregated facilities of the Medical College of Virginia (MCV).

But many more children, black and white, needed inpatient care, too many to be accommodated in the existing facilities. In 1923 the MCV Board of Trustees voted to support, with the help of the Women's Auxiliary, a new white convalescent facility to relieve the hospital bed shortage, allowing recovering children to be cared for in a more home-like environment. The black children at St. Philip's, however, remained hospitalized for many months, sometimes years, until their treatment and rehabilitation was complete (Gibson, 2007; Report of the State Commissioner of Health to the Governor of Virginia, 1940, 1941). The pressing need for pediatric orthopedic care resulted in a successful legislative and fundraising campaign for a Crippled Children's Hospital (CCH) for white children, which opened in 1928. The white children moved into the new, state of the art children's orthopedic hospital while the black youngsters remained in the crippled children's ward at St. Philip.

There were never enough beds for all the disabled black children who needed care and the wait list was long. Once children arrived at St. Philip's they received care similar to other youngsters around the country suffering from bony TB. Surgeons sometimes removed infected tissue. In other instances they immobilized the affected bone or joint in a cast or traction for months, hoping that this, along with fresh air and improved nutrition, would heal the infection. The lengths of stay could be greater than a year.

Prominent white members of the CCH Auxiliary were also active in the care of the children at St. Philip Hospital. Many consciously strove to make sure black children received things they needed, such as a teacher. Others, however, scrutinized resources, insisting that white children receive priority. The evidence suggests that once opened in 1928, the new CCH became their primary focus, and white Board members' active interest in the children at St. Philip diminished (Minutes of the Women's Auxiliary Crippled Children's Hospital, Children's Hospital, 1920-1937, n.d.). Women who served on the St. Philip Hospital Committee, strove to create a homelike environment, supplying toys and decorations at Christmas, for example. But although they received academic schooling and health education, children spent many hours with little to do, especially since parental visits were discouraged, just as they were at CCH (Gibson, 2007).

Children's sense of waiting to get well and watching the world around them is captured in the words Estelle, whose musings were captured in a 1927 hospital pamphlet. Sitting in a rolling chair with four other youngsters on St. Philip's fourth floor porch, Estelle surveyed

the city of Richmond observing the growing city, matter-of-factly acknowledging the racial stratification that was the norm:

We can see ever so many things from this porch. We can see all the way across the viaduct, which has streetcars, trucks, bicycles, and automobiles passing over it all the time. My teacher says that the big hill I see towards the east is called Church Hill. Beyond Church Hill, I see a valley. Many railroad tracks with ever so many trains on them. Some of the trains are moving, going away, and some are coming into Richmond. We can hear the engines puffing...we can see a white school building and a colored one too. (Boys and Girls of the Crippled Children's Hospital, 1927).

Pediatric Tuberculosis Prevention in Virginia

The idea of waiting until children developed TB-related symptoms and required a painful surgery and lengthy hospital stay frustrated reform-oriented Virginians. Like their counterparts around the nation, they sought solutions to the TB epidemic that were prevention-oriented. This meant admitting children before they were acutely ill and providing aggressive nutritional support, sunlight (heliotherapy), and protracted periods of rest in bed. Blue Ridge sanatorium, chosen for its central location in Virginia and its proximity to the University of Virginia medical school and hospital, became the center for the state's pediatric tuberculosis prevention movement. Like St. Philip and the Crippled Children's hospital, Blue Ridge, received financial support from the state as well as private donations. Almost as soon as Blue Ridge opened, it began accepting white children. By 1922, Blue Ridge had a dedicated pediatric ward for children ages 6-15 years (Story of Blue Ridge, 1926)

Fortunately, Blue Ridge's records contain snippets of unpublished autobiographical accounts of how children perceived the sanatorium. Rachel Heatwole, one of Blue Ridge's first pediatric patients, kept a diary that she began during her stay at Blue Ridge, providing a glimpse into her impressions through the eyes of a child housed there. One of nine children from a Mennonite family who lived near the Virginia town of Waynesboro, 12 year old Rachel was sent to Blue Ridge in 1921 because her chronic cough had prevented her from attending school for at least three years. None of the medicines doctors prescribed made a difference, nor had the recent extraction of her tonsils. Segregated from other patients at first to make sure she did not have measles, chickenpox, or other highly infectious disease, she soon joined the regimented Blue Ridge life. The program stressed the importance of her trying to eat as much as possible and her weight was closely monitored by the nursing staff. Sleeping outdoors in order to be exposed to as much fresh air as possible, Rachel admitted in the winter she felt "pretty cold at times."

Although Rachel enjoyed the food, small inconveniences annoyed her. For example she wrote her parents "The cooks made good chicken but they didn't clean the feathers off very well..." Homesickness is also a frequent theme in the diary and in her letters home, but she reassured her family about the fun she often experienced. For example, she wrote excitedly to her mother about the 1921 Halloween party for children in which nurses helped them all dress in costumes, after which they attended a party where she got to "eat lots of candy." She kept her mother apprised of her weight, since nurses and physicians used it as the primary barometer of improving health and an important discharge criteria. Finally, she demonstrated her imagination and perhaps an attempt to make sense of her illness and sanatorium stay, by writing to her mother about her most prized possession her doll Maud Cornelia: "I carried her [Maud Cornelia] on exercise but I think she has the T.B. I never had her examined yet I am afraid the doctor could not find her lungs but she takes the cure just like I do ha ha ha..." After about a year at Blue Ridge, Rachel was sent home where she

continued a modified regimen that included rest and precautions which she scrupulously followed in an effort to avoid infecting her family. However, a later stay at Catawba sanatorium found that she had been ill with bronchiectasis, not tuberculosis (History of Blue Ridge, 1920-1980).

By 1922 nurse Elizabeth McCann was hired to care of the pediatric patients, who were now aggregated in their own ward. But plans were afoot to build a freestanding building at Blue Ridge known as a “preventorium.” Often founded and almost always managed by nurses, preventoria were intended to prevent tuberculosis (TB) in indigent children. Children resided for months, sometimes years, at preventoria. The institutions did not treat sick children, but aimed to prevent TB in indigent youngsters considered to be more “at risk” for TB than the middle and upper classes who could presumably afford better food and less crowded living conditions. Preventorium children typically hailed from families in which one or both parents suffered from TB. They spent as much time as possible out of doors in camp-like settings where they received their education, meals, and rest. The preventorium idea fit neatly into the 1920s, an era of national focus on infant welfare and children's health promotion and disease prevention, embodied in the first federal health-oriented legislation in the United States, the Sheppard-Towner Act (Markel & Golden, 2005).

Largely through the efforts of Agnes Randolph Dillon's oversight of the National Tuberculosis Association's “Modern Health Crusade,” Virginia was awash in Christmas Seal funds in the 1920s (Modern Health Crusade in Virginia, 1919). The idea of adding a charitable stamp to a holiday greeting card, originally conceived in 1903 in Denmark as a fundraising strategy for tubercular children in that country, had quickly crossed the Atlantic to the United States. In an effort to fund as many preventoria and other TB programs as possible, the NTA worked with local officials like Randolph to make sure its annual Christmas Seal campaign was a lucrative community and national event (Knopf, 1922). In 1917, partly in response to the large number of World War I draftees found unfit for military service, the NTA expanded its health rules game, the Modern Health Crusade, nationwide, with the goal of improving children's health and their fitness as future citizens.

Begun on a small scale in 1914 the Crusade, a competitive school-based curriculum for health education, blended training in health habits and notions of good citizenship into narratives of fantasy and fairy tales. It rewarded children's efforts with prizes and with the opportunity to progress through a series of steps toward good health. The messages contained in Crusader curricula, whether manifested in pamphlets, lectures, films, or plays, emphasized citizenship, middle-class hygiene, and morality (Modern Health Crusade, 1919).

Blue Ridge's preventorium opened in 1926, just at the height of the preventorium movement nationwide. Accepting thin, “sickly” children, it aimed to “restore these undeveloped and under-nourished children to a normal condition in order to prevent their breaking down with tuberculosis in later life.” The year round open air school at the preventorium was designed so that they could move seamlessly back to public school after discharge (Story of Blue Ridge, 1926). Nurses took children's temperatures regularly. If it was elevated, they needed to stay in bed until it came down to normal range.

Care at the preventorium regimented as one child recalled:

We marched over to the dining room for all our meals. They assigned us a place at the table. We could ask for seconds but we had to eat everything on our plate...that was rough because I could hardly stand turnips and cornbread....”As well as I can remember, our schedule was this: breakfast, rest, school for an hour, a large dinner, bed for three or four hours, sun porch for an hour, [receiving sunlight or “heliotherapy” unless it was raining or snowing] supper. Then we'd come back to

the place we had school and have a piece of candy. Afterwards we'd go out to play until bedtime at 7:30 or 8:00 (History of Blue Ridge, Chapter 6, page 10).

Homesickness was rampant, especially because parents were permitted, but not encouraged, to visit. As one brochure reportedly noted:

Remember your child is sent to the Sanatorium because it is ill and needs treatment; and if the best results are to be gotten and the child is to recover in the shortest period, it must be left to our care with little or no interruption from parents, relatives, and friends. Too frequent visiting on the part of the parents upset and often is the cause of the child losing the best chance of recovery by getting dissatisfied or homesick. (History of Blue Ridge, Chapter 4, page 23).

By and large, the preventorium was a child-saving strategy for a particular type of child—white, poor, and often immigrant or first-generation American. Even photographs from preventoria in northern sections of the United States, where tradition, not law, dictated segregation, reveal only a few black faces. The lack of beds for children of color is particularly notable given the higher mortality rate from TB among black children. Pretubercular black children in both the North and South received few formal health care services. Although the Virginia Tuberculosis Association worked hard in the 1920s, for example, to move Charlottesville's pretubercular white children from the Blue Ridge sanatorium into their own building, there was no such interest in the health of African American children (Annual Reports, Blue Ridge Sanatorium, 1922-1926). Although the state's sanatorium for black tuberculosis sufferers, Piedmont, also approved plans for a children's pavilion, it appears that one never opened. Piedmont did admit a few children, but they were housed with adults and there was no preventorium for their care. Only one preventorium for African American children ever existed, in Shreveport, Louisiana (National Tuberculosis Association Directory, 1931). Convalescent care finally became available for black children with tuberculosis of the bones and joints in Virginia in 1940 in the Tidewater area (Gibson, 2007; Report of the State Dept of Health to the Governor of Virginia, 1940, 1941).

By the early 1930s, however, the economic problems caused by the Depression made it difficult for the preventorium to remain viable. Blue Ridge administrators were pressured to update the preventorium according to changing standards for what constituted a modern pediatric institution. Moreover, a growing number of 1930s child welfare interventions, such as those implemented by the 1935 Social Security Act, prioritized family preservation, making the preventorium increasingly out of step with the times. The advent of antibiotics represented the single most damaging factor to the preventorium's existence, however. The discovery of streptomycin in 1943 followed by isoniazid in 1952 reframed TB as a disease treatable with outpatient therapy. The incidence of TB in the United States declined rapidly and the era of the preventorium was over. The Blue Ridge preventorium closed in 1950 (Annual Report, Blue Ridge Sanatorium, 1951; History of Blue Ridge).

The Social Security Act of 1935 also included funding for crippled children, increasing funding options and visibility for The Crippled Children's Hospital which expanded its services (Adams, 1979). Over time it evolved into a multi-hospital specialized center for the care of children. Now known as "Children's Hospital" to better reflect the breadth of its services, it provides inpatient and outpatient care to thousands of children a year (A brief history of Children's Hospital, n.d.)

A Changing World

Since 1935, technological advances, specialization and sub-specialization within health care, the growth of public and private health insurance, combined with other societal changes to

forge a very different world. Health care delivery in Virginia, as well as the rest of the nation, looks very different than it once did. The mid-twentieth century civil rights movement, for example, challenged the norms, values, and institutions that once underpinned every aspect of American life and hospitals, schools, and other institutions gradually changed their policies regarding segregation. Nursing has undergone significant shifts as well. But although nurses are better educated and more diverse as a profession, with a host of vibrant new roles and specialties that would have been unrecognizable to our forebears, many of the arguments underpinning contemporary health care reform, are rooted in the decisions made in the years between 1900 and 1935.

Understanding the way our predecessors responded to the pediatric tuberculosis crisis illuminates the enduring nature of the issues the United States as it grapples with its health care delivery system. Early twentieth century nurses in Virginia were in the vanguard of multiple movements: tuberculosis prevention, child-saving, and building a state-wide public health infrastructure. Embodying a mixture of idealism, pragmatism, and incrementalism, Virginia's nurses played a leadership role in designing a template for care that continues into the twenty-first century. Ultimately, however, their legacy is a mixed one. They helped forge a system funded by a complicated, poorly coordinated, race- and class-based mix of public and private support that is now delivered through an idiosyncratic web of community, state, and federal programs. But they also took courageous action. Refusing to wait for "someone else" to respond, they consciously improved the lives of many children, although most of these youngsters were white. By so doing, they helped invent the new specialty of pediatric nursing.

The United States' remains uncertain whether health care is a "privilege" or a "right" and as a nation, we tacitly tolerate large inequities in access and disparities in health. A major legacy of this ambivalence is that all care remains class-based and health disparities according to race are prevalent (Larson, Russ, Crall, & Halfon, 2008). Although Virginia today meets the needs of its poor children better than eighteen other states, which have higher rates of uninsured youngsters, more than 10 percent of the state's children lack health insurance of any kind (Data Across States, 2009). Perhaps the most important legacy of Virginia's public health nurses is one that we can use today. Unwilling to be trapped by conventional wisdom, the patterns of the past or accept the status quo, they drew on all of the resources they could muster to innovate new models of health care. So, too, can today's nurses challenge historical precedent to improve the well-being of all Americans.

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Figure 1.
Landmark moments in pediatric TB prevention in Virginia.