NAVIGATING the Future Through the Past

The Enduring Historical Legacy of Federal Children's Health Programs in the United States

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The United States excels at treating the most complex medical conditions, but our low-ranking health statistics (relative to other countries) do not match our high-end health care spending. One way to understand this paradox is to examine the history of federal children's health programs. In the 1800s, children's health advocates confronted social determinants of health to reduce infant mortality. Over the past 100 years, however, physicians have increasingly focused on individual doctor–patient encounters; public health professionals, meanwhile, have maintained a population health perspective but struggled with the politics of addressing root causes of disease. Political history and historical demography help explain some salient differences with European nations that date to the founding of federal children's health programs in the early 20th century. More recently, federal programs for children with intellectual disability illustrate technical advances in medicine, shifting children's health epidemiology, and the politics of public health policy. *(Am J Public Health*. 2012;102:1848–1857. doi:10.2105/AJPH.2012.300714)

HOW DID CHILDREN'S HEALTH in the United States get to where it is today? In some community hospitals in Miami, Florida, my hometown, every birth is attended by a board-certified obstetrician and a board-certified neonatologist. Prenatal care for expectant mothers is widely available, and children are screened and treated for a host of medical conditions from infancy through their school years. If serious illness occurs, vast resources go to medical specialists and hospitals to address the needs of affected children and their mothers. Yet in some neighborhoods, 48% of children aged 3 years are overweight or obese, and asthma rates are double the national average.[1] My community is not unique: throughout the United States, we excel at treating the most complex medical conditions, yet we rank poorly relative to other nations on population health measures. In a 2006 international comparison, the United States was first in health care spending and 39th in infant mortality rate (IMR).[2] Despite a century of dramatic progress in infant and child mortality, significant disparities that correlate with income, race, and ethnicity persist.[3]

Uneven access to health care is one explanation for our relatively poor health outcomes: millions of US children are uninsured or underinsured, with negative consequences for their health.[4] A related factor is that advances in medical care may improve overall health but exacerbate health care disparities, because some populations with better access benefit first from new treatments and health advice.[5] A different set of explanations focuses on the social determinants of health.[6] Because health is determined by a complex array of genetic, behavioral, social, and environmental factors, access to health care is only one contributing influence on population health. Long-standing differences in housing, nutrition, life experiences, and built environment affect health across the life span and contribute to disparities among populations in the

United States.[7] The US health care system rarely addresses these underlying causes with the intensity or resources that are devoted to medical care.[8] For example, a 2010 study estimated that local, state, and federal investment in public health programs amounts to less than $100 per person in the United States; overall health care spending, by contrast, is more than $6000 per capita.[9]

The neglect of public health in the United States is a vitally important phenomenon that first took shape and then accelerated during the 20th century. In the 19th century, medical practitioners were deeply concerned with each patient's environment, and they were frequently involved in local public health issues. In larger cities, public health professionals viewed social and political reform as critical to improving population health.[10] Over the past century, physicians and public health professionals followed diverging professional trajectories, and tensions arose over the best way to improve the health of US citizens.[11] Physicians have increasingly focused on providing technologically sophisticated care to patients in acute care settings; public health professionals, meanwhile, have become responsible for collecting vital statistics, monitoring epidemics, testing for specific diseases, providing health education, addressing maternal and children's health, and investigating environmental health hazards.[12] Both have increasingly relied on the impartial mantle of science while reducing alliances with overtly political groups that address issues such as income, housing, and civil rights.[13]

The 75th anniversary of Title V of the Social Security Act provides an auspicious opportunity to explore how these broader historical trends have affected children's health. Federal health agencies such as the Maternal and Child Health Bureau (MCHB) have their origins in this landmark legislation,[14] and exploring the history of federal programs is one sampling device for understanding the US approach to children's health. To that end, I reviewed the history of medical care for children in the United States over the past 200 years, explored the origins of federal children's health programs in the United States in the early 20th century and how those programs differed from those of our European counterparts, and examined how federal intellectual disability programs serve as an example of how Title V leaders (members of the federal government who implemented Title V and distributed funding) crafted strategies to improve children's health since the 1940s. Decisions made over the past 100 years continue to affect children's health today.

MEDICAL CARE FOR CHILDREN

Medical practice in the 1800s has been described as a transition from the specific to the general: for centuries physicians focused on understanding a specific individual—a person's habits, constitution, environment—to devise an individual treatment regimen to restore health.[15] Diagnosis, treatment, and prognosis depended on examining a patient's social, cultural, and economic conditions. Distinctions between social and medical factors made little sense because medical practitioners understood health to be the sum of an individual's constitution, habits, and environment. Providing individual medical care thus required addressing a patient's environment as much as providing a specific medicine. Later in the 1800s, the incorporation of modern scientific principles led physicians to look for universal patterns that transcended individual variation. Germ theory in particular—the notion that a microorganism caused a particular disease—transformed medical practice as one disease after another became linked to a specific microorganism. In this new model of disease, the body was seen as a complex set of physiological processes that were disrupted by invading organisms. Eventually, protecting the body through immunizations and ridding the body of microorganisms through antibiotics emerged as the key paradigm, and environmental conditions became less relevant to individual practitioners.[16]

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Medical care for children differentiated from more general medical care when pediatrics emerged as a medical specialty in the United States in the late 1800s.[17] As the number of trained physicians grew and medical knowledge became increasingly vast, practice patterns in cities changed to allow medical professionals to pursue—and patients to choose—specialized medical care. Particularly in the United States, medical practice has followed a path of ever-increasing specialization, with each decade bringing new waves of subspecialty delineation. Health care took its modern form in the United States around 1900, as hospitals became places where patients would find the most sophisticated technology, surgical interventions produced good outcomes, and medical students and residents learned medicine.[18] The history of medical practice over the past century is predominantly a story of new scientific knowledge translated to bedside interventions. Examples include the discovery of insulin in the 1920s, the use of penicillin in the 1940s, and widespread polio vaccination in the 1950s.[19]

The particular shape that pediatrics took as a specialty is an example of the idiosyncratic history of medical practice in the United States.[20] Unlike in most other industrial democracies, where the general pediatrician is a consultant to the general primary care practitioner, in the United States the pediatrician provides primary care for most children, and subspecialists (particularly in urban areas) have become an expected part of caring for children with routine conditions such as asthma, diabetes, and epilepsy. Indeed, the changing epidemiology of children's health has become a challenge for the field of pediatrics over the past several decades: it is increasingly difficult to justify the highly technical training of pediatricians in hospital medicine, in light of the sorts of problems faced by most of America's children.[21]

Substantial debate has focused on whether the medicalized path the United States has chosen is ideal for optimizing the health of its citizens. We have made extraordinary progress, albeit along a rather narrow path: outcomes for premature babies born with access to regional neonatal intensive care units in the United States are among the best in the world; however, our IMR remains higher than that of many other nations, much as it did 100 years ago, and substantial disparities between Blacks and Whites persist.[22] In the early 1900s, the nation believed that the greatest health benefit would be achieved by providing discrete medical services based on scientific evidence to individual patients. Our dominant reimbursement system for health care, for example, encourages physicians and institutions to provide services to ill patients; it offers little reward for preventive medicine or focusing on the health of a population. For better (technologically sophisticated care to some individuals) or worse (remarkable health inequities), what historian Charles Rosenberg has called "inward vision and outward glance" is the path that we as a nation have taken over the past 100 years.[23]

CHILDREN, MOTHERS, AND PUBLIC HEALTH

Children's health took on important political meaning in the late 1800s because healthy children came to be seen as critical to the well-being of emerging nation-states. Wars were won or lost and economies were productive or sluggish, according to the health of a nation's young men. In the wake of reports that one third of recruits were unfit for battle in World War I, for example, Secretary of Commerce Herbert Hoover argued that children's health was critical "to secure physical, mental and moral health, economic and social progress by the nation."[24] In what we today might call a life course perspective, both politicians and medical scholars believed that the health of a population required attending to the health of babies, because problems of infants and children affected adult well-being. Women's health was critical because conditions of pregnancy influenced the infant; healthy mothers bore—and raised—healthy children.[25]

Saving Babies

The US Children's Bureau (USCB) was created in 1912 by President William Howard Taft as part of the international movement to improve the health of mothers and children. Children were a key focus of the Progressive Era, a period characterized by the widely shared faith that science, efficiency, and cooperation could solve society's problems. Coalitions of nurses, physicians, lay reformers, and politicians fought campaigns for child labor laws, compulsory education, and the creation of juvenile court systems. Their efforts resulted in the creation of the USCB as well as other institutions specifically designed for children, including orphanages and children's hospitals.

From its inception, the USCB focused its health programs on the IMR, which was above 100 deaths per 1000 live births in most communities. In the early 1900s, the IMR carried symbolic meaning as a measure of public health and community well-being; it was also a practical way to focus on the most effective ways to improve children's health. "The study of sick babies in hospitals and dispensaries will not do so," asserted William C. Woodward, chief statistician for the USCB, "however much it may teach us as to treatment."[26]

Only accurate vital statistics would allow baby-saving efforts to be properly focused and evaluated. In its first decade, the USCB produced an influential series of studies of the causes of infant mortality in representative communities across the United States.[27] These studies confirmed that the IMR was broadly linked to poverty and unsanitary conditions, but no single factor was consistently and easily identified. Maternal employment was a common problem, but variables linked to the IMR in particular included diet, heat, overcrowding, dirt, swaddling, heredity, fresh air, light, ignorance, and medical care. Analysis of death certificates indicated that infant diarrhea was responsible for a third to a half of the IMR, but even that did not lead to a specific intervention.[28]

While researchers speculated on the cause of infant diarrhea, practicing physicians offered a wide range of opinions and advice to mothers and the public. Nearly all agreed that breastfeeding was important; it was well known that artificially fed infants died at a higher rate from gastrointestinal diseases than did breastfed infants. Physicians' advice to mothers who could not breastfeed regarding appropriate substitutes, however, varied greatly. Commercial infant foods were usually condemned; cow's milk was acceptable only if modified according to a doctor's prescription. Such formulas became very complicated and required intensive training to master. Indeed, pediatrics emerged as a specialty in the late 1800s largely because of its expertise in infant feeding.[29]

Local public health officials, meanwhile, followed the strategy of improving the milk supply. City health departments set standards and tested the chemical and bacteriologic content of milk, and voluntary organizations opened milk stations in poor neighborhoods, to which mothers were attracted by cheap or free milk. In some cities, physicians and milk producers cooperated to offer milk that was more expensive but certified pure. A few agencies also provided directories of wet nurses, but they were the exceptions. By 1920 pasteurization of the milk supply was required by most municipalities, and such regulation replaced previous strategies in most US cities.[30]

Poverty and Its Causes

Even before pasteurization was widely accepted, infant health advocates turned away from improving the milk supply and toward maternal education. IMR statistics led reformers to focus on infant care and feeding, but such data did not specify who was responsible for infant deaths. The various strategies to create a clean milk supply, for example, suggested that the community—through city government and voluntary organizations—was responsible for reducing the high IMR. Most physicians and public health officials, however, focused on the individual responsibility of mothers. The IMR was statistically associated with poverty, but infant deaths seemed to be caused by factors related to poverty, such as lack of education, inadequate diet, substandard housing, general overcrowding, poor sewerage, and faulty childrearing habits. These problems were caused not by a simple lack of money, most reformers argued, but by defects in intelligence and moral character: ignorance, laziness, and substance abuse led both to poverty and to infant deaths.[31]

Although convinced that parents were ultimately responsible, infant welfare workers did not abandon hope of reducing the IMR. If ignorance among the poor claimed the lives of innocent babies, then knowledge would save them. Starting in the second decade of the 20th century, a crusade for health education swept the nation. Visiting nurses and physicians in milk stations and health centers gave advice on infant care and home hygiene. Mothers learned how to protect babies from diseases carried by flies, conveyed by their dirty hands, and transmitted through impure milk. Public education supplemented such personal instruction. All across the nation, baby weeks, better baby contests, and a flood of public health literature told mothers, among other things, that a fat baby was a healthy baby. Baby-saving shows and exhibitions were particularly popular, and the lay press joined the campaign with enthusiasm.

Some reformers, however, believed that education alone was not enough. Many mothers had to work long hours and could not breastfeed, some families could not afford homes in clean neighborhoods, and families with barely enough money for food and clothing could not afford a doctor. Reformers proposed several strategies to close the gap between rich and poor, such as creating day nurseries to care for babies of working mothers, supporting compulsory health insurance for low-income families, and providing food, clothing, and housing for pregnant women. Others saw employers as key: with sufficient income from the father, they

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argued, mothers would be properly nourished and could afford to stay at home to care for the children.

The disagreement over how to reduce the IMR mirrored a longstanding controversy over how to alleviate poverty in general.[32] Most Americans agreed that for reasons of religion, morality, or self-interest, society had an obligation to improve the lives of the poor. However, the belief that the poor had only themselves to blame and that providing alms simply created dependence and perpetuated poverty also persisted. In the late 19th and early 20th centuries, Americans generally held that hard-working but low-income families deserved help, especially when the father died, fell ill, or lost his job. Such assistance was usually temporary, however, because philanthropists did not want to rob the poor of their will to work.

American attitudes toward poverty were also reflected in dominant views toward medical care and help explain the controversy surrounding the 1921 Sheppard–Towner Act, a federal law designed to improve children’s health through well-baby clinics and other public health programs. Supporters were able to push through the legislation because the poor health of World War I recruits highlighted the national significance of children’s health and because many politicians believed that women, who had just earned the right to vote in 1920, would strongly support children’s health programs. Critics of the act viewed it as an inappropriate incursion of government into medical practice. Families should pay a private physician a fee for medical care, the argument ran, because free clinics would rob the poor of their incentive to work and compete unfairly with private physicians. In 1929 Congress purposely did not fund Sheppard–Towner, effectively ending the program. One key factor was the American Medical Association, which opposed the original legislation and continuously sought its repeal. The American Academy of Pediatrics was formed in 1930 largely in reaction to the medical association’s role in ending the Sheppard–Towner Act.[33]

Title V and Its Limits

The key provisions of the Sheppard–Towner Act reemerged in 1935 in Title V of the Social Security Act. In the mid-1930s the resources of the federal government were seen as critical to ending the Great Depression, and Title V was one of several economic programs; others were unemployment compensation, old-age provisions, and financial aid to families with children living in poverty. Title V allowed the USCB to provide grants-in-aid to states for children’s and adults’ health programs, and the law encouraged the development of full-time units for maternal and children’s health services in state health departments. Each state submitted a plan that accorded with federal guidelines, which was reviewed by the USCB before funds were released. State legislatures could increase their share of federal funds by committing state funds. States reported back to the USCB, which compiled both quantitative and qualitative data. The USCB also provided technical assistance to states, held national meetings, organized advisory committees on pediatrics and obstetrics (e.g., standards for prenatal care), and conducted broader studies of children’s health (e.g., maternal mortality, rickets).[34] These features of Title V continue to shape the federal–state partnership of programs today.

What the laws didn’t provide is just as important historically as what they did provide. Neither the Sheppard–Towner Act nor Title V of the Social Security Act was an entitlement program, for example, although many other aspects of the Social Security Act were. Instead, children’s health activities at the federal level focused on educating families and the general public on the importance of proper hygiene for expectant mothers and young children, as well as on professional education regarding medical care of children and expectant mothers. Direct health services of the Sheppard–Towner Act were limited to children’s health conferences with parents (now known as anticipatory guidance); personnel at these well-baby clinics redirected families to private physicians if they discovered anything requiring further medical care.[35] Title V did allow states to provide direct medical care for so-called crippled children, whose ailments included rickets, paralytic polio, childhood injury, and tuberculosis of the bone.[36] Such orthopedic impairments were thought to require social and rehabilitative services to prevent future disability, and most states organized specialty clinics for these children.

Perhaps most important was the relatively small scale of children's health projects compared with unemployment compensation and social security programs that also began with Social Security in the 1930s. The contrast with northern European nations is instructive. Although European children's welfare movements paid similar attention to the poor and displayed similar ambivalence toward welfare, nations such as France and England created government programs that offered financial assistance and direct medical care to all mothers and children, regardless of income.[37] Because their goal was future military and economic strength, European nations provided government benefits as an entitlement to all citizens, not as a charitable donation to the poor. Britain's School Medical Service and 1918 Maternity and Child Welfare Act, for example, demonstrated that nation's commitment to its citizens regardless of socioeconomic status.[38] Today most European nations provide a host of government services to all mothers and children as part of national plan to ensure children's health.

Although the rhetoric of US leaders was similar to that of their European counterparts in the early 1900s, the United States never mustered sufficient urgency to pass national or state legislation guaranteeing the health of all mothers and children. Part of the explanation is that European nations faced a declining birth rate and shortage of healthy bodies, whereas the United States was flooded with immigrants. The influx of men and women willing to work in factories and sweatshops meant that the United States did not face the fundamental demographic problem of European nations: population decline. Historians have noted several reasons for America's decision not to pass comprehensive health legislation in the early 1900s, including opposition by physicians, viability of workplace alternatives, and the decentralized nature of US politics.[39] However, the underlying difference in demographics contributed greatly to the differences between Europe and the United States. As a consequence, US children's health policy focused on the problems of poverty, and government and voluntary interventions were defined as a form of charity. Children's health was primarily viewed as a private responsibility, with a limited role for local, state, and federal government.[40]

INTELLECTUAL DISABILITY

Over the past 75 years, leaders of Title V at the federal level have pursued a public health approach to improving maternal and children's health: gather data, identify problems, clarify specific issues, devise solutions, implement model programs, disseminate successful ones, train professionals, educate the public, and measure outcomes. Each decade, federal Title V leaders have focused on specific problems revealed by statistics and informed by public opinion. For example, they used state grants in the 1930s and 1940s to fund direct services for crippled children because of the prevalence of orthopedic impairments. As surgery to repair cardiac conditions became possible through advances in the 1940s, the focus of Title V programs shifted to children with rheumatic heart disease or congenital heart conditions.[41] Through the 1970s, federal Title V leaders had a key role in deciding how to fund medical care, train providers, measure outcomes, and set national standards in pediatric cardiac care. Perhaps most importantly, the experience with cardiac conditions spurred Title V state grant programs to expand beyond children with orthopedic impairments. Title V funding went to a host of maternal and children's health issues: prenatal care, childhood injuries, hemophilia, adolescent pregnancies, poison control, sudden infant death syndrome, oral health, and newborn hearing screening. In each case the particular issue—and Title V's role—was shaped by epidemiology, advances in medical care, and the politics of the time.

Intellectual disability is a particularly illustrative example of federal children's health programs in the United States. Intellectual disability programs have been a consistent part of the MCHB's portfolio since the 1950s, and both the specific programs and the relative importance of intellectual disability have followed the broader contours of changes in epidemiology, scientific and medical progress, and political relevance. Perhaps more importantly, responses to intellectual disability neatly illustrate that although tensions existed between bedside medicine and public health, most programs had aspects of both.

Changing Perceptions

In the 1800s, intellectual disability was considered to be a rare medical condition, and most people with severe cognitive impairment were cared for by their families at home. In the mid-1800s, many states opened institutions with great hope that the scientific application of the proper environment could cure intellectual disability, but by the 1890s, optimism had waned in the face of the human and financial costs of institutional care for a chronic condition. Intellectual disability became a national issue during World War I, when the prevalence of the condition was thought to be much higher than in 1900: one third of army recruits were found to be "feebleminded," although they displayed no outward difference in physical appearance or underlying medical condition. The US response included state laws to sterilize people with intellectual disability and federal laws to restrict immigration by populations thought to have a high prevalence of the condition.[42] Through the 1940s, children with intellectual disability were not a priority for the USCB, and some states had laws that restricted the use of Title V funds to children with IQs above 75.[43]

At the same time that eugenic laws were instituted, families of children with intellectual disability began to form grassroots organizations to advocate for their children's participation in school and community events. Prominent public figures such as entertainer Roy Rogers and novelist Pearl Buck told stories of their children with disabilities, transforming intellectual disability from a source of shame to one of pride and courage. By 1950, when groups of parents founded the National Association of Retarded Children, the issue of intellectual disability was becoming a national priority.[44] In her report to Congress in 1954, for example, USCB bureau chief Martha May Eliot identified children with intellectual disability as one of the four key children's health groups deserving special attention. A year later, Title V established demonstration projects to provide clinical services to children with intellectual disability. Spurred by the national association's influence in Congress, funding soon followed to create interdisciplinary clinics led by pediatricians throughout the nation.[45]

Intellectual disability became a critical national priority in the early 1960s when President John F. Kennedy's Panel on Mental Retardation called for a series of initiatives to reduce the prevalence of intellectual disability by 50% by 2000.[46] The Kennedy family had long been interested in intellectual disability, in part because the president's sister Rose had a developmental disability. Eunice Kennedy Shriver in particular made sure that her brother—and the federal government in general—followed through on the recommendations of the president's expert panel.[47] For example, amendments to the Social Security Act of 1963 allotted $110 million over five years to Title V to "help reduce the incidence of mental retardation caused by complications associated with childbearing."[48] These and other Title V funds went to creating manuals for parents of children with intellectual disability, improving prenatal care through model demonstration programs, and training professionals to provide health, educational, and rehabilitative care for people with intellectual disability.

Changes in the epidemiology of maternal and children's health were critical to the nation's focus on intellectual disability in the mid-20th century. In the early 1900s, nearly every family experienced the death of a child, if not in their own family then in a neighbor's or a close relative's family. Infectious diseases were rampant, and as many as one in five children died by five years of age from pneumonia, diarrhea, or another common childhood infection. By 1960 the IMR in the United States had dropped from more than 100 to fewer than 30 per 1000 births, and later childhood deaths were even rarer. This remarkable improvement in children's health meant that families and physicians no longer faced daily deaths caused by infectious diseases. US society could thus consider investing large-scale resources in relatively rare conditions of childhood, such as intellectual disability.[49] This epidemiological trend toward lower mortality has continued, and it prompted Robert Haggerty in 1968 to describe the "new morbidity" of childhood as behavior disorders and relatively rare chronic conditions.[50]

The Promise of Prevention

Advances in modern medicine also kindled interest in intellectual disability in the mid-20th century. By the 1950s, evidence showed that early intervention could mitigate the neurologic consequences of errors in metabolism from phenylketonuria and other metabolic causes of intellectual disability. This approach was effective only if treatment began before symptoms appeared, however, which made it feasible only in younger siblings of affected individuals. In 1958 a Technical Advisory Committee to Title V leaders first recommended exploring newborn screening programs in the general population to identify children with phenylketonuria before symptoms emerged. In the early 1960s, universal infant screening became practical when microbiologist and pediatrician Robert Guthrie introduced a semiquantitative phenylalanine assay that could be applied to a drop of dried blood. State children's health programs in 32 states participated in Guthrie's study of 400 000 newborns, which demonstrated that the screening test was effective. Following extensive grassroots lobbying from the National Association of Retarded Children, most states quickly adopted the test as part of the routine work of children's health programs.[51] Title V funded key clinical trials, academic conferences, and widely disseminated reports on newborn screening for metabolic conditions throughout the following decades.[52]

When newborn screening began in the 1960s, many scientists and advocates believed that the systematic application of scientific medicine would eliminate most causes of intellectual disability by the end of the century. Early detection and treatment of phenylketonuria and hypothyroidism were seen as the first of many successes to come, and federal resources poured into research and training in developmental disabilities.[53] Newborn screening programs, like other medical interventions (e.g., antibiotics for syphilis and vaccines for rubella), prevented many cases of intellectual disability over the past half century. Such programs likely had less effect on the prevalence of intellectual disability than did more general children's and maternal health programs, however.[54] This is because most cases of intellectual disability are related to a combination of risk factors, such as family income, maternal education, neighborhood characteristics, and early home and educational environment, as well as factors traditionally seen as part of medicine, such as low birth weight, prenatal maternal health, exposure to cigarette smoke, poor nutrition, exposure to lead, and recurrent infections.[55] As the number of risk factors increases for a particular child, the risk of intellectual disability increases.

Although specific medical interventions have had a relatively small influence on the prevalence of intellectual disability, the effectiveness of programs to address the social determinants of health may have had much greater impact.[56] Scores on tests of cognitive ability have been steadily rising for decades; if standardized tests were not recalibrated every decade or so, the prevalence of intellectual disability would theoretically have been reduced by more than two thirds over the past half century.[57] Improved nutrition, better access to education, and reduction of environmental hazards—such as the lead abatement programs championed by the Centers for Disease Control and Prevention and Title V leaders—have likely had a substantial impact on the prevalence intellectual disability.[58] This finding is consistent with a larger body of research on the health of populations: improvements in nutrition, public health, and overall economic well-being have likely contributed more to the dramatic drop in mortality over the past century than specific medical interventions such as antibiotics and immunizations.[59]

The example of intellectual disability initiatives neatly encapsulates key themes in the history of Title V. MCHB leaders were at the forefront of an emerging children's health issue; they developed programs and provided funds for research, training, model programs, dissemination, and quality improvement. Specific initiatives were shaped by the voices of families and advocates, the directives of legislative and executive authority, and the prevailing trends in medicine and science. Title V leaders also ensured continuity with ongoing MCHB priorities. For example, prenatal programs in the decades before the 1950s that were designed to reduce maternal mortality were understood in the 1960s as reducing the chances that a baby would be born with a cognitive impairment.

Taken together, Title V programs had a profound influence on the nation's approach to intellectual disability and more generally helped improve the health of women and children. Yet federal children's health programs such as newborn screening and lead abatement ultimately relied primarily on identifying patients in need of individual medical treatment; the deeper social and economic causes of children's health were generally addressed by agencies for housing, education, and children's welfare.

CONCLUSIONS

Caring for the health of children is as ancient as our species; federal children's health programs are modern phenomena that reflect specific historical circumstances and are shaped by broader trends in demography, science, medicine, politics, and culture. Over the past century, succeeding generations of federal children's health leaders have addressed the pressing health issues of their time and have used the most advanced medicine and technology available, within the funding and priorities set by Congress and the president. Federal children's health programs are but one factor in determining children's health in the United States, of course, but all efforts to improve children's health over the past century have faced the same enduring set of historical circumstances. This history helps explain the paradoxes of children's health in the United States: despite remarkable progress over the past century, significant disparities among racial/ethnic groups remain, and overall, the United States does poorly compared with other nations of similar wealth.

One current response to persistent health disparities is a return to the 19th-century focus on social determinants of health. Although poverty and other social factors have never disappeared from our understanding of children's health, over the past century our medical system was increasingly dominated by individual doctor–patient encounters, and many in our nation see a relatively limited role for government in maintaining and promoting health. Our choices today are not determined by previous ones, but the legacy of previous decisions is all around us: we have inherited institutions, attitudes, professional training, expectations, tax codes, laws, and regulations that all reflect a particular approach to improving the health of children. One key to navigating toward a brighter future is to recognize how past generations' decisions are embedded in our present. The legacy of children's health programs in the United States presents a challenge for those who seek to address the social determinants of health from a life course perspective. ■

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