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Origins of the PCP Shortage

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In John Thomas Scharf 's *History of Delaware: 1609 to 1888*, the chapter "Medicine and Medical Men" concludes with a directory of all physicians registered with the clerk of the peace. The detailed list starts on page 507 and ends halfway down page 508 after just 230 names. He does not mention other healthcare providers, such as barbers, nurses, or unregistered doctors. With a population of ~146,608, Delaware doctors were outnumbered 638 to one.[1] Though when bleeding, blistering, and purging are used as curatives, this ratio of providers-to-patients likely benefited many nineteenth-century patients and increased their chances of survival.

However, even as medical science improved and the population increased, the number of doctors in the state remained roughly the same. In 1910, the state had grown to 202,322 inhabitants but added only 17 physicians— approximately 820 people for every doctor.[2] Today, the ratio of primary care providers to patients in the state remains alarmingly high at 1,418 to one. While the COVID-19 pandemic has exacerbated the situation, our state has grappled with a healthcare workforce deficit for over a century.

The Way It Was

For most of human existence, healthcare happened at home. Generations of the sick or injured relied on the wisdom and support of family and community. Extra medical care came as a house call. With tools in tow, the doctor arrived ready to perform any number of treatments in any setting. Hospitals were few and primarily provided charitable care for the friendless and destitute.

Medical training for rural doctors, such as it was, often happened 'on the job' with an apprenticeship. City physicians or those caring for wealthy families went to for-profit, proprietary medical schools. The professional training they provided was not much better— in two 16-week terms, a medical student read the required materials, attended lectures, and passed their exams, sometimes without touching a human patient.

To provide some oversight of the field, Delaware created a Board of Medical Examiners in 1802. Chief among their duties was to establish a system for issuing medical licenses. The requirements included "the presentation of a diploma conferred by a reputable college of medicine" or an examination by the Board, a thesis on a medical subject, and a $10 fee.[3] However, even this bare-bones process was compromised within a few decades when the state legislature exempted homeopaths— allowing them to administer a separate self-regulated assessment system instead. Unfortunately, these competing systems decreased the state's medical community's reputation, rendering Delaware-issued licenses valid within her borders only.[4]

The Times, They are a-Changin'

By the end of the nineteenth century, the theory and practice of medicine in America began to change. With the growing acceptance of germ theory, centuries-old humoral and miasmal theories fell aside. Medicine quickly became a science rather than an art, requiring greater accountability from its practitioners. Sanitation, vaccination, and education became top public health priorities. Delaware's General Assembly created the State Board of Health in 1879 to enforce the growing

number of laws regarding contagious diseases and the duties of physicians in reporting them. Hospitals, too, transformed, becoming centers for clinical research and treatment of acute ailments.

In April 1899, the trustees of Delaware College (now the University of Delaware) provided space in the main building for a fully equipped pathological-biological laboratory, the Delaware Public Health Laboratory (DPHL). The lab continues to serve as an adjunct in diagnosing and controlling diseases. Physicians began to develop expertise in specialized areas like microscopy and infectious diseases, expanding opportunities in medicine beyond primary care.

In the last decades of the century, the face of medicine began to change as well. Western medicine had been a White man's game for centuries. However as the field expanded, it began to open to previously excluded groups. Women were training at co-educational medical schools and newly-established women's colleges. By the early 1900s, multiple medical schools opened for Black students.

This period of rapid expansion would soon end. In 1904, the largest professional organization of its kind, the American Medical Association, created the Council on Medical Education (CME) to evaluate the quality of training available in the US and Canada. The first order of business was to agree on what counted as a "medical education." In addition to setting the minimum prior education required for admission to a medical school, they defined proper medical education as two years of human anatomy and physiology training followed by two years of clinical work in a teaching hospital.

Next, with funding from the Carnegie Foundation, they hired Abraham Flexner to examine the curricula offered by North American schools. Using the Johns Hopkins University School of Medicine as his standard for comparison, Flexner visited over 150 institutions for his evaluation. He published his findings in 1910 as *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching*, generally referred to as the Flexner Report.[5]

Nearly half of American medical schools fell short of the report's rubric. Flexner's recommended reforms included increasing standards, partnering with hospitals for clinical training, and closing schools that could not afford to update and maintain facilities. He emphasized the need for curricula to adhere to the protocols of mainstream sciences in their teaching and research. Flexner additionally reported that too many medical schools were training too many doctors.

While Flexner and the CME did not have the power to enforce their recommendations, state licensing boards did, and they moved quickly to mitigate the perceived public health threat. Not long after the report's publication, medical schools were legally required to refine admission standards and follow stricter curriculum requirements.

Though proprietary schools were already struggling financially, Flexner's report sounded the death knell. Many schools derided in the report either merged or closed soon after publication. By 1915, ninety-six schools were training physicians; fifteen years later, there were only seventy-six.

With a standardized comprehensive course of study and stricter entrance requirements, medical education was available only to those from economically privileged backgrounds.[6] The constriction of medical education to an elite few raised the social status of those granted access to the field and the price for their services.

Furthermore, the culling of the field reinforced race and gender segregation within the profession. Women were excluded to accommodate White men competing for spots at the remaining universities. Some opportunities remained for women within hospitals as nurses, though their role

was limited. Many schools that dissolved were smaller rural and Black colleges. When these colleges disappeared, so too did the already small pool of doctors serving poor, working-class, rural, and Black communities. Few who graduated from the surviving medical schools moved away from cities and more populated areas, expanding the already large healthcare deserts throughout the county.

Lasting Effects

Black Delawareans comprise 23% of the population but only 6.6% of its doctors. In comparison, 66.7% of Delaware's doctors are white, representing only 61.9% of the population. A 2020 study estimated that if all of the medical schools that educated Black physicians in the early 20th century remained open, there would have been an additional 35,315 Black physicians in the workforce between the 1910s and today.[7]

In 1900, six percent of practicing physicians were women, yet by 1940, they made up only four percent. Women started to raise that percentage in the 1960s, though they have yet to catch up to men in compensation, leadership positions, and research publications.[8]

Although Delaware has suffered from a lack of primary healthcare providers since the 1880s, racism and sexism have exacerbated the problem. The reforms ushered by the Flexner Report and the CME continue reverberating throughout the profession today.

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