Women Healers

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Women are and have always been the primary providers of care for the injured and sick—both within their own families and out in their communities. Women were the midwives and bone-setters who gathered medicinal herbs, priestesses of goddesses and highly respected in society. Even today we recognize that they are the directors of family healthcare, and that health education for families begins with educating wives, mothers and daughters.

Records indicate that women physicians and midwives have existed from antiquity, but gradually disappeared from the realm of medicine a millennium ago, reappeared in positions subordinate to men, and have only recently begun their ascent to the forefront once again. Some scholars attribute this to the differences between men and women. Indeed this mirrors the overall history of women's rights over the course of time. To better understand the changing roles of women healers throughout time, one must closely examine social change and its impact on gender roles in society.

This white marble sculpture of Hygeia, the Greek and Roman goddess of health personified, was found at Ostia, near Rome, Italy. 'Hygeia' is derived from the root word 'hugies' or 'hygies,' meaning healthy, which is also the root word for hygiene.

"Every woman is born a doctor. Men have to study to become one."

—Eliza Flagg Young, M.D., 19th century physician

Elizabeth Blackwell. *Courtesy of The Schlesinger Library, Radcliffe Institute, Harvard University.*

Elizabeth Garrett Anderson was the first English woman to get a medical certificate (1865). *Courtesy of The Schlesinger Library, Radcliffe Institute, Harvard University.*

In early times, as man was characterized as caretaker, woman was seen as caregiver. While women practiced as healers and midwives in antiquity, early civilizations brought change to the norm. Hippocrates made it clear in his oath that healing was a profession for men, and slowly women were moved into more subordinate positions in the medical hierarchy, most prominently during the Grand Inquisition and subsequent witch trials that ensued. Despite the shift and rise of men in the field, there is evidence that women continued to practice medicine and surgery into the Renaissance, yet their numbers were severely truncated.

While some female physicians practiced in the 17th and 18th centuries in Britain, it was not until the mid 1800s that women were allowed to enter formal medical training in the United States and mainland Europe. As the Industrial Revolution dawned, more men left the home to work in factory settings, and women began demanding jobs and educational opportunities. During this time the woman's struggle to regain entry into medicine made significant inroads as **Elizabeth Blackwell** and **Elizabeth Garrett Anderson** accomplished their dreams of studying medicine; their stories illuminate the tremendous struggle of women of the time.

In the late 1800s, medical schools such as Johns Hopkins began granting women equal admission rights to training programs, and indeed trained a significant number of scientifically gifted female physicians. However, the difficulties of attending medical college were, for women, nearly insurmountable. Women were still harassed, ridiculed and given fewer chances for full training than their male counterparts. Society still believed, as Dr. Charles Meigs told the 1847 graduating class at Jefferson College, that woman "has a head almost too small for intellect, but just big enough for love."

While various medical colleges were founded to meet the needs of a growing number of women interested in the field, it took the Equal Opportunity Act of 1972 to trigger important changes. Following the passage of the law, the number of women applicants to medical school tripled.

Urology, however, is a prime example of a specialty that has been slow to attract female physicians. This historically predominantly male specialty — both as practitioners and as patients — still remains disparate in terms of women in the field. In recent decades, the rise of female patients, as well as specific research and interest in female urology issues, has helped to increase the number of women practicing in our field. Yet still today, they make up only a small percentage.

Ancient Times

During Ancient Times, women were held in high regard as healers to their communities, and the majority of early civilizations show evidence of this. In the ancient kingdom of Akkad and Ur, women were considered honorable healers. In the 3rd century B.C., the Indian tyrant Asoka, following his conversion to Buddhism, prompted the construction of hospitals for the poor. During his reign, citizens of both genders were taught how to care for the sick.

In the Far East around 1,000 B.C., female physicians in the Chinese and Siamese courts were held in high esteem. China, in its Zhou Dynasty period, was probably the most civilized country in the world as it was then known. Political fortunes and balances shifted, people moved, business thrived and perished, and knowledge spread throughout the world. During the Eastern Zhou period, the medical system included imperial physicians of both genders trained in a variety of specialties.

Within the framework of Western medicine during antiquity also developed the notion that the ability to heal was given by divine intervention. A wide number of healers were considered priests and priestesses of societal gods. Among the Celts in Ireland, priestesses of Druid gods such as Sirona and Sul dealt with medical problems.

In Egypt, Isis was the great goddess of medicine, and her heavenly sisters were charged with protecting humans from nighttime pains. Other goddesses, such as Selkhet, Hathor or Ubastet, had special fields of competence in medicine just as physicians specialize today—fertility, motherhood and healing, respectively. Healing and harming were not far separated from each other, and priestesses served as intermediaries between patient and goddess to procure the goodwill of the deities—for while they could cure and heal, gods and goddesses could also inflict pain and death.

A Voce Alta: Women in Italy ("A voce alta" means "With a loud voice")

Italy has long been seen as a hotbed for free thought and progressive ideas, and the reaction to women in medicine reflects this viewpoint. Numerous key women in the field originated or studied in Italy, including **Trotula of Salerno**, and Italy is well known for its role in the Renaissance.

Unlike other areas in Europe where women were edged out of the medical field, licensed and unlicensed women healers could be found in Italy into the 18th century. Though able to practice, these women were controlled by the Protomedicati, a group led by university-educated physicians. The Protomedicati licensed a few female barber-surgeons, but some local guilds prohibited the practice.

The Archbishop of Bologna, Prospero Lorenzo Lambertini, pressured local senates to grant degrees and university positions to women, as he knew that women had been university lecturers in the past. Lambertini, who would ultimately become Pope Benedict XIV in 1740, was instrumental in advancing women in his diocese. He helped gain degrees for **Laura Bassi** and **Cristina Roccati**, as well as university positions for Bassi, Maria Agnesi and Anna Manzolini and memberships in the Academy of Sciences which not only included Bassi and Agnasi, but also Faustini Pignatelli, Madame du Chatelet, Madame du Borrage and Marguerite Le Compte. These rights were bestowed upon these women by the local nobility governing the state of Bologna. Bassi was also the sole female member of the Benedettini, an elite group of 25 scientific scholars hand-chosen by the Pope.

Another famous woman in Bologna was **Anna Morandi Manzolini**, who learned anatomy, dissection and wax-modeling skills from her husband, Giovanni. Despite their limited educations, the pair worked closely with leading surgeons in Bologna to develop anatomical wax models from cadaveric dissections that would become the standard for models used in today's medical schools. Manzolini's work is still showcased at the Museum of Normal Human Anatomy of the University of Bologna.

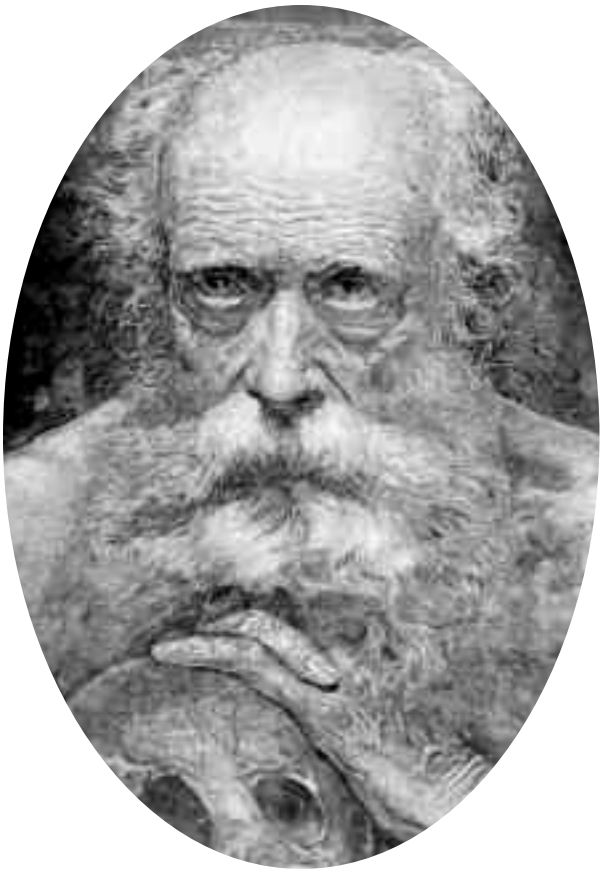
With the occupation of Bologna by the French beginning in 1796, under Napoleon, the senate was abolished; the College of Medicine dissolved in 1798 and reforms begun by this first republic continued with the arrival of the second republic. A number of other institutions were dissolved during these regimes and researchers found themselves without jobs. The political conditions that had made it possible for some women to hold positions in institutions of higher learning were wiped out by Napoleon in 1803.

A coin was made in Laura Bassi's honor upon her graduation.

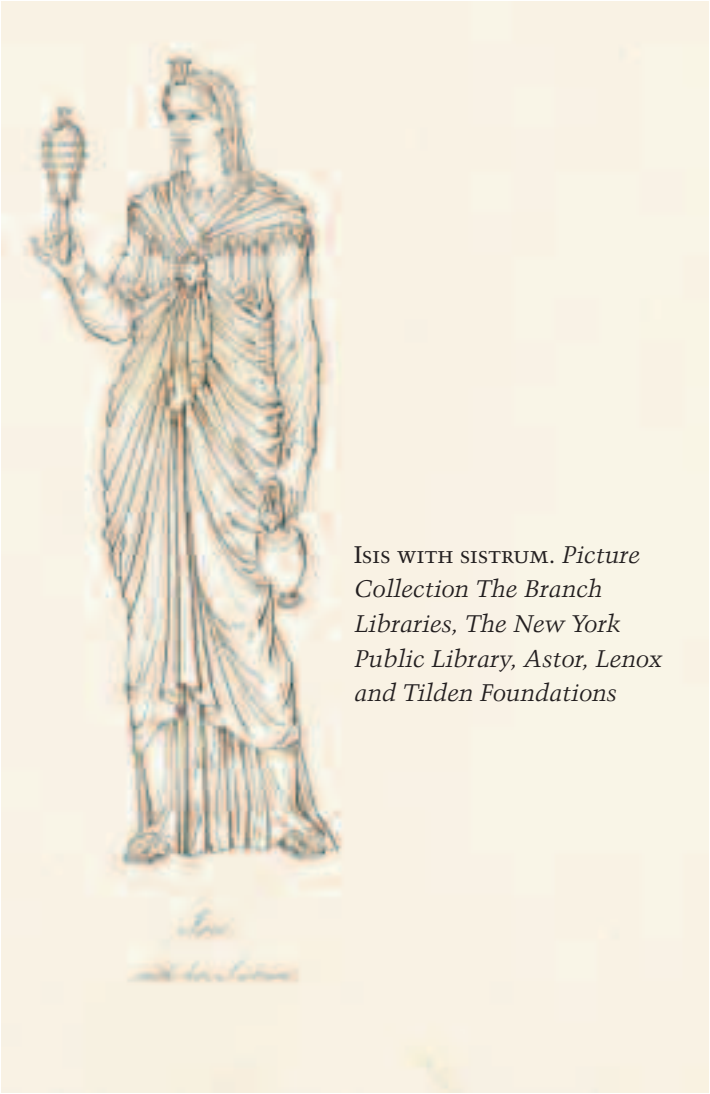
Medical knowledge from these regions fed through commerce and spread over time to the lands of the Phoenicians, Egyptians and Greeks — the basis for what would become the earliest Western civilizations.

Medical arts may also have had a cradle in India, and it is possible that Hippocrates, the father of medicine, may have been trained there in the arts of caesarean sections, trephining and laparotomies. It is somehow ironic that, despite his training in and exposure to societies seemingly void of gender bias, Hippocrates was one of the earliest physicians to blatantly omit women from the practice — as his Oath imparts physicians to:

> "consider dear to me as my parents *him* who taught me this art; to live in common with *him* and if necessary to share my goods with *him*; To look upon *his* children as my own *brothers*, to teach them this art if they so desire without fee or written promise; to impart to my *sons* and the *sons* of the master who taught me and the disciples who have enrolled themselves and have agreed to the rules of the profession, but to these alone the precepts and the instruction."



Hippocrates made it clear in his oath that healing was a profession for men.



Isis with sistrum. *Picture Collection The Branch Libraries, The New York Public Library, Astor, Lenox and Tilden Foundations*

Over the past two decades, women historians have explored feminine roles in history, and often revised well-known archetypes in history. The early years of Christianity have been revisited by these scholars, and as a result, the common perception of women during this time has changed. Newer research is uncovering different perceptions of major women of the period as leaders in the Christian movement and in society. However, at some unknown point in this early history, the legitimacy of female leadership was declared heretical, and women were delegated to a position of subservience to the males then recognized as authorities.

Middle Ages

Despite the medical advances of the great Western civilizations of Greece, Rome and Egypt, progress stalled in the Middle Ages as a wide confluence of factors came together to reshape society. During the early Middle Ages, women were still known to have a role in medicine, as we have record of Trotula serving as chair of medicine at the School of Salerno in Italy, and **Hildegard of Bingen** developing her comprehensive text of herbs and their applications at the time.

Said to be the first female professor of medicine in the 11th century, **Trotula of Salerno** is believed to have assembled a compendium on women's medicine. Though there were two additional contributors, the book is commonly known as *The Trotula*: *A Medieval Compendium of Women's Medicine* after its female co-author. The compendium went through a number of reprints over time and was translated to English in 1940—a testament to the legacy left by Trotula.

The beginning of the Middle Ages coincides with the early rise of the Christian Church, whose influence was taking root. While much medical practice at the time was based on the achievements of the ancient societies, folk medicine did not align itself with Christianity and, as a result, a deep tension began to form between the Church and folk healers. Illness was considered a punishment for sin; repenting—not an herbal remedy—was the cure.

As Church influence grew and spread, herbalists—who were more accessible to and affordable for peasants and laborers than trained physicians—were gradually excluded from medical society. Saints took the place of gods and goddesses in healing sick patients, and monasteries took a major lead in running hospitals.

Malleus Maleficarum was a guide to witch-hunting. *It was written during the Middle Ages. First published in Germany in 1485.*

1533 account of the execution of a witch charged with burning the town of Schiltach in 1531.

In the 13th century, however, women healers came under new fire as the Inquisition was instituted in Europe and the Church began persecuting heretics. Herbalism was seen as witchcraft and witchcraft as heresy. Therefore many herbalists of the time were prosecuted and either tortured, killed or driven underground. Though not all women healers were prosecuted, healing itself was cause for many suspects to be hunted, tortured and convicted by Inquisitors.

A notable volume of the time was the *Malleus Maleficarum*, first written in 1485 by two Dominican Inquisitors. The book became the primary basis for proceeding against witches, was available in multiple languages and underwent 30 printings by 1669. *Malleus Maleficarum*, or "Witch's Hammer" was directed explicitly against women. The authors claimed that women leaned towards witchcraft because they were dumber, weaker, more superstitious and less firm in their faith than men. Furthermore, women's lives were totally and irredeemably centered in the lust of the flesh.

Despite the advent of the Renaissance in the 14th century and the free thinking it promoted in Europe, the Inquisition continued its prosecutions through the 16th century. For as society was re-opening its mind to the acceptance of neoclassical ideas, the historical acceptance of women and folk medicine was one concept that was conveniently omitted.

The fires of the witch hunt burned throughout Europe from Russia to France and from Spain to the British Isles. Hun-

dreds of thousands of people were executed for heresy and crimes against the Church. The European witch hunts paved the way for similar trials in New England in the late 1600s. Trials continued in Germany, with the last public execution taking place in 1775.

Women healers never fully regained their role in society, as the craze for persecution of witches significantly lowered their status throughout Western civilization. Witch hunts succeeded in excluding women from the ranks of practicing healers; in the following centuries society controlled access of women to medicine with pseudo-scientific arguments.

The advent of the Protestant Reformation in the 17th century did not bring an end to the persecution, but instead it brought a loss of influence for the Catholic Church, which had supported hospitals, monasteries and nursing. Medical training was withdrawn from monasteries and moved more fully into the university setting, removing the opportunity for education in medicine more completely from women. Coupled with the Biblical idea that women's place was in the home, the gender divide in medical training became even more pronounced.

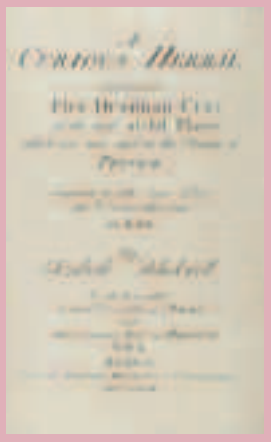
The Age of Enlightenment, however, would bring great change to the religion-weary world which, after hundreds of years of church rule was more than happy to lean toward secular influences. It was during this period that scientific discoveries took off, as Galileo Galilei, Nicholas Copernicus and Johannes Kepler changed our view of the macrocosmos and the creation of the first microscope by Anton von Leeuvwenhoek opened our view of the microcosmos. The era also fostered a political frenzy as society shrugged off medievalism. The Age of Enlightenment encompassed periods of strong political change, including numerous wars and the French Revolution. It was during this time that we start to see the early beginnings of the feminist movement as women worked to ensure that gender roles — and not only social class and the caste system — were reformed and equalized. Enlightened thinkers, such as Olympe de Gouges and Mary

Curious Herbals: Nature's Gift to Healer Women

Learning and manipulating nature's secrets to heal has been a mainstay of medicine since antiquity. Folk remedies were prepared most often by village women to whom lore had been passed down over generations. The practice of using herbs to heal is universal, and transcends Western culture, spanning nearly every country in the world. From the beginning of humanity, it seems, plants have been used in some form in the treatment of maladies. Evidence dates the use of herbs back to 5,000 B.C.

The first formal catalog of herbs and their uses, *De materia medica,* was created by Dioscorides in the first century A.D.

Galen, the ancient Roman physician whose views dominated Western medicine for millennia, encouraged the use of medicinal herbs, but it was more predominantly village women—to whom herbal lore had been passed for generations—who laid the groundwork for his breakthroughs. The line between healing and harming is thin, and the practice of herbalism is delicate. While societies enjoyed the benefits of well-practiced, trusted remedies (some with legitimate results) for the most basic and complex of ills, it was this trust that ultimately put experienced healers at risk for persecution during the Middle Ages as the Church began its ascent in society, women fell in social status, and natural healers became a target for the Grand Inquisition.



As the Catholic Church rose in power and the Roman Empire fell, developments in herbalism moved from the West to the East, as Arab civilization continued the studies of Galen's theories. This civilization was the first to use herbal tinctures, alcohol extracts, to administer herbal remedies. As development continued within the Arab scientific community, this knowledge was easily re-imported back to Europe as Crusaders re-

Illustrations from the *Curious Herbal. Courtesy of Missouri Botanical Garden, www.illustratedgarden.org*

Wollstonecraft published works challenging reformers to reconsider their thoughts on gender roles and equalize opportunities for women.

The Enlightenment also saw major developments in business and industry and the rise of the Industrial Revolution as the 18th century gave way to the 19th century. As machinery replaced the manual labor of old and affected the work force, so also were the roles of women affected. As business moved into factories, women, who had typically labored alongside their husbands, were left to handle domestic tasks in the home. Men were bringing home income, which in turn gave them power over their spouses—who were often reliant on their husbands for their own well-being. Ultimately, this would define the "traditional family" model that holds to some extent even today.

While men comprised the majority of the working force of the time, women were not restricted from working. They were, however, paid less than men and often subjected to less satisfactory conditions. On the heels of this burgeoning capitalism came the opportunity for women of means to make their move into mainstream medical society.

"Strengthen the female mind by enlarging it, and there will be an end to blind obedience."

—Mary Wollstonecraft

turned home from the foreign lands. The Benedictine monks were among the first to adopt the practice of making tinctures.

One of the more notable herbalists of these Early Middle Ages was **Hildegard von Bingen** (1098-1179) who catalogued her recipes and recommendations for herb use. The 10th child of the family, she was dedicated or "tithed" at birth to the church—as was customary at the time. The young German girl, however, had a mystic quality and spoke to her anchoress Jutta and a monk named Volmar of seeing visions. One such vision was said to have given her absolute understanding of religious texts and she was commanded to write down everything that she learned in every vision she would have. As a result, von Bingen wrote prolifically on a variety of topics, including theology, nature and philosophy. One of the most notable was the two-volume work *Liber Subtilatum* (1150), which outlined natural history as well as the curative powers of various natural objects.

While surely many other women were practiced herbalists during the Middle Ages, social restraint and risk of persecution ultimately forced many to stifle their practices. Ironically, it was more the origin of knowledge, rather than the practice of herbalism itself, that was the problem. Formally trained physicians using the same practices and herbal remedies in the hospital that folk healers were using in their communities were not persecuted during these tumultuous times. Healers who practiced their arts without having studied medicine were prosecuted since it was believed medical knowledge not gained through a medical school could only have been given by Satan.

It was not until **Elizabeth Blackwell** (1712-1770) in the 18th century that we begin to see laypersons involved prominently in the promotion of herbalism. Blackwell, a studied botanist and herbalist, authored *The Curious Herbal* as a means to help pay the outstanding obligations of her husband Alexander, who was imprisoned for debt in 1737. Her two-volume work was published in 1739 and contains 500 color drawings and copper engravings depicting plants most useful in the practice of medicine and outlining their individual uses. The work found the support of the Royal College of Physicians and the Company of Apothecaries. Notable male contemporaries, including the famous obstetrician and surgeon James Douglas (1675-1742) considered her to be one of the most accomplished women of the time. Her namesake, **Elizabeth Blackwell, M.D.** (1821-1910) would call her "a physician-accoucheur worthy of all praise."

Herbalism would go on to become a key ingredient in the quackish cures of quacksalvers around the world, with some tonics and potions defying medical reason. However, some of the botanicals that have served healers for millennia continue in the physician's arsenal to this day.

Pioneers

Dorothea Christiana Erxleben (1715-1762), the daughter of a town physician in Germany, was one of the earliest female physicians to be accepted for and to pass formal medical examinations. She received instruction in languages and sciences from her father and through the rector of the local "college." Having studied medicine with her father and assisted on house calls, she wrote to the King of Prussia asking for permission to study medicine at the university. After several months, she received his open-minded response, "Good candidates of both genders should be recommended to the university."

Fate, and the Franco-Prussian wars, intervened against Erxleben, however, as her brothers and father were drafted for service and deserted one-by-one—leaving the woman to support the rest of her family by tending to her father's patients instead of beginning her studies.

A remarkable and independent woman, Erxleben began to write her thoughts on the question of a woman's capacity to

Portrait of Elizabeth Blackwell seated in profile, 1849. *Schlesinger Library, Radcliffe Institute, Harvard University.*

Mary Edwards Walker, M.D.

Mary Edwards Walker, M.D. was one of many women who rose to fame for her service during the U.S. Civil War. An 1855 graduate of Syracuse Medical College, Edwards – a native of Oswego, NY – went to Washington, D.C. following the outbreak of war and attempted to join the Union Army. Though she was denied a medical commission, she served dutifully as the army's first female surgeon, volunteering first as an unpaid volunteer in the U.S. Patent Office Hospital and later as a field surgeon near the front lines at the battles of Fredericksburg and Chickamauga.

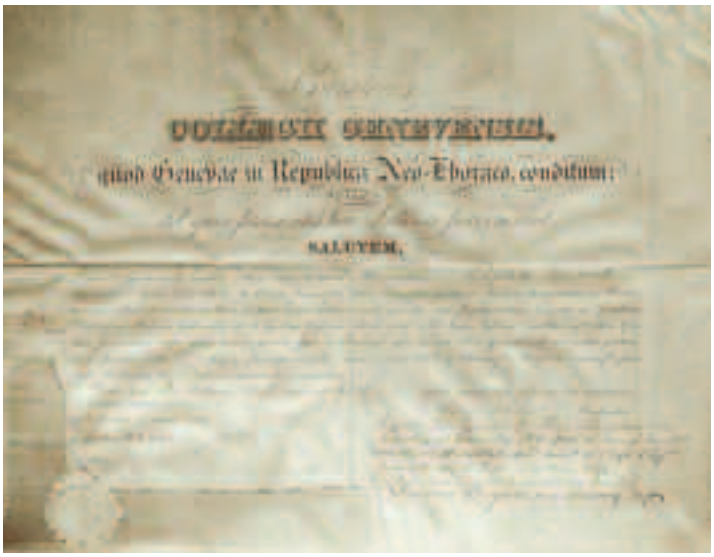
Besides her unique service as a woman physician in the medical corps, Walker is also known for her propensity as a spy – frequently crossing Confederate lines to treat civilians. She was taken prisoner by the Confederate Army in 1864 and released four months later in a prisoner exchange.

Portrait of Mary E. Walker wearing the Congressional Medal of Honor. *Schlesinger Library, Radcliffe Institute, Harvard University.*

Walker was awarded the Congressional Medal of Honor for Meritorious Service in 1865, but was never granted an army commission. It is said that she wore the medal every day – even after Congress revised the award's standards and rescinded her medal and more than 900 others (she refused to return the decoration). In 1977, President Jimmy Carter reinstated her medal posthumously. She was – and remains – the first woman to receive this award.

Following the war, Walker, like other female physicians of the time, fought for women's rights, temperance, dress reform and health issues. She is known most for her work in the field of dress reform – and was arrested numerous times for wearing men's clothes in public.

In 1982, a 20-cent postage stamp was issued in Oswego honoring Walker for work as an army surgeon, for her Congressional Medal of Honor and for being one of the earliest female medical school graduates.



Blackwell's Diploma from the Geneva Medical College.

study at a university. This essay, "Examination of the Causes which Keep the Female Gender from Studying in Which their Unimportance is Shown and How Possible, Necessary and Fruitful it Would be for this Sex to Enter the Learned Professions," was published in 1742 in Berlin. Each of the then-current prejudices and arguments against higher education for women was brilliantly refuted.

Following the death of one of her patients, however, local physicians accused Erxleben of medical quackery and she was ordered by the local magistrate to report in the regional capital for her doctor's examination within three months. In 1754, she delivered her dissertation, which dealt with the issue of rapid and comfortable — but therefore frequently uncertain — cure of illnesses. Her request to the Prussian king to have her dissertation accepted was approved, and she passed her examination in May 1754. She would go on practicing medicine and was highly respected in the upper circles of society until her death eight years later.

Elizabeth Blackwell is commonly recognized as the first woman in the United States to be accepted to — and graduate from — medical school. It is said that Blackwell, a teacher, became interested in medicine and in becoming a physician to meet the needs of women who wished to see a doctor of the same sex. She studied her interest privately before applying to an array of schools. "The idea of winning a doctor's degree gradually assumed the aspect of a great moral struggle," she later wrote, "And the moral fight possessed immense attraction for me."

Though rejected by most of the schools to which she applied, one institution — Geneva Medical College in New York — handled her application differently. Upon receipt, the administration polled the male student body on whether to admit Blackwell. The students, suspecting a practical joke, endorsed the admission.

Blackwell would go on to be ridiculed and outcast during her early days in Geneva, even restricted at times from classroom demonstrations. Nevertheless, she went on to graduate first in her class in 1849. The ceremony commemorated the extraordinary event in many ways. When Dr. Blackwell was conferred her degree, she was called up alone and the president rose, rather than remaining seated as he had for the male graduates, to present her diploma. The dean of the medical school, Charles Lee, expressed his admiration for her during his commencement address. "Why should woman be prohibited from fulfilling her mission as a ministering angel to the sick, furnished not only with the softer and kindlier attributes of her sex, but with all the appliances and resources of science," he said. "If she feels called to this life of toil and responsibility, and gives evidence of her qualifications for such a calling, in humanity's name, let her take her rank among the disciples of Aësculapius, and be honored for her self-sacrificing choice."

However, in the printed version of Lee's address, he added a contradictory third-person addendum. "While he holds this opinion, he at the same time feels bound to say, that the inconveniences attending the admission of females to all the lectures in a medical school, are so great, that he will feel compelled on all future occasions, to oppose such a practice, although by so doing, he may be subjected to the charge of inconsistency."

Despite the controversy swirling around her (following her graduation from Geneva, the school denied female applicants admission for some time), Dr. Blackwell would go on to pursue post-graduate training in London and Paris before returning to the United States in 1851. She was met with discrimination as hospitals and dispensaries refused to associate with her and denied her office space to set up her practice. Ultimately, she would purchase a house for her practice and see women and children in her home. She opened a dispensary in the New York slums in 1853 and her partners included her sister Emily (a graduate of Western Reserve Medical College in Cleveland) and **Dr. Marie E. Zakrzewska** of Germany. Leading

Dr. Marie E. Zakrzewska

Mary Putnam Jacobi, M.D.
Courtesy of The Schlesinger Library, Radcliffe Institute, Harvard University.

male physicians provided consultations to clinic's staff, which included many famous early female physicians, including **Mary Putnam Jacobi, M.D.** and **Rebecca J. Cole, M.D.** The dispensary was incorporated as the New York Infirmary for Women and Children.

The Drs. Blackwell also organized the Women's Central Association of Relief during the U.S. Civil War to help with selection and training of nurses, and this venture helped inspire the United States Sanitary Commission. Both women also worked to open the Women's Medical College in New York. Elizabeth Blackwell later moved to England and helped organize the National Health Society and founded the London School of Medicine for Women. She finished her medical career at the London School of Medicine for Children, founded by Elizabeth Garrett Anderson—one of the many young women who entered the field of medicine after being inspired by Dr. Blackwell's struggles and achievements.

Inspired by Blackwell's admission to Geneva, **Harriot Hunt** (1805-1875) was the first woman to apply to Harvard Medical

Rise of Modern Nursing

The history of nursing is tumultuous. Early nursing forces consisted of nuns in church-run hospitals that were shut down following the decrease in Catholic Church influence. Hospitals of the time were often filled with epidemics and disease because of unsanitary conditions. Nursing was considered a domestic service at the time, known for its long hours, hard work and poor pay, and as a result it was not an acceptable vocation even for the industrial class.

The birth of modern nursing began in 1836 with the establishment of the Deaconess Institute in Kaiserswerth, Germany by Pastor Theodor Fliedner. He implemented training programs for would-be nurses, and established a system where the "deaconesses" would receive no pay for their work, but rather live within an order and be taken care of for life in return for their service. The concept spread around the world; additional Orders were established and the nursing workforce grew as the profession became viable and attractive. One of the young women attracted to the concept was **Florence Nightingale.**

Nightingale attended the Deaconess Institute and also the Maison de la Providence in Paris to study nursing—against the expressed wishes of her family members, who were concerned about the deplorable conditions of the time. Well-educated and ambitious, Nightingale had grand plans to become superintendent at King's College Hospital. When troops invaded Crimea in 1854, she was asked by Britain's war secretary to lead a contingent of nurses to the region and oversee military hospitals there during the Crimean War.

In Crimea, the young nurse and her 38-woman nursing force found deplorable conditions—

Florence Nightingale.
The Library of Congress.

overflowing latrines, vermin and no running water. She also made the discovery that more patients were succumbing to infection than to their wounds. She was able to implement much-needed sanitary procedures and to reform the way the military hospitals were operating. Improving sanitation standards is one of the many contributions that Nightingale made to modern medicine.

On her return from the war, Nightingale began to discuss in detail the hospitals in Crimea with their enormous mortality rates, fever epidemics in present-day hospitals and the overcrowding of beds in institutions such as the venerable Guys Hospital

School. A practicing physician (though untrained) since 1835, Hunt became known as the "Mother of the American Women Physician." Her 1850 Harvard application was rejected, though she was given permission to purchase tickets to lecture (without the opportunity to receive a degree). After much protest from members of the senior class, the invitation to attend lectures was rescinded. Women were prohibited from attending Harvard until 1946!

The first African-American woman to receive a medical degree in the United States was **Rebecca Lee.** Born in Delaware in 1831, she moved to Massachusetts in 1852 where she took up nursing without any formal training. In 1860, she was admitted to the New England Medical College and graduated in 1864. After a short time practicing in Boston, she moved to post-war Richmond where she joined other black physicians to care for freed slaves without access to medical care. Their work was supported by the Freedman's Bureau. She eventually returned to Boston and retired in 1880.

Kadambini Ganguly (1861-1923) was one of the first female medical school graduates in the British Empire. The first woman to pass entrance examinations for the University of Calcutta in India, Ganguly received a Graduate of Bengal Medical College (GBMC) degree in 1886, and became the first female Indian doctor qualified to practice Western medicine. She, like other women physicians of the time, was active in social movements and women's liberation, and is recognized for her work to improve conditions for female coal miners in east India.

Kadambini Ganguly

in London.

In her report to a Royal Commission that inquired into the sanitary condition of the British Army, she described the diseases seen during the Crimean War, virtually the same as those of the United States Civil War: diarrhea, dysentery, rheumatism, scurvy, typhoid fever and intermittent fevers. Sanitary precautions were few, if any, and the mortality rate was more than 45 percent. Telling of clashes between female nursing staff and hospital stewards, Nightingale took issue with one other problem. "The orderlies do not bring skilled labor to the work, and the medical staff corps no less," she wrote. "There is little or no training…"

Her recommendations on how to improve conditions, though known, were not heeded in the United States, though the young democracy would soon find itself in battle. Prior to the outbreak of the United States Civil War in 1861, there were no nursing schools and military protocol barred women from field hospitals — a woman's place was at home. However, within three weeks of President Lincoln's call for militia volunteers in April 1861, hundreds of women volunteered to serve as nurses and 100 were selected to take a special short course in providing nursing care to Union soldiers. The Confederacy, however, did not give women nurses official status until the following year, and nursing duty was handled by convalescent soldiers and infantrymen unfit for field duty.

On June 10, 1861, **Dorothea Lynde Dix,** who had already led the effort to modernize the care of the mentally ill, was appointed to the position of Superintendent for Women Nurses by the Union's secretary of war. Dix ran a tight ship for her nurses, stipulating that women under 30 need not apply; applicants for the service had to be plain-looking and wear simple brown or black dresses with no bows or hoops. Jewelry was also restricted. Though Dix had rules in place governing the nurses in her service, many women wanting to provide nursing care disregarded the stringent regulations and performed their work independently of the service. All told, close to 10,000 women (nearly 1,000 of them nuns) served as nurses during the Civil War, many of them uncompensated volunteers. Approximately 90 percent of these women served on the side of the Union.

Dorothea Dix. *The Library of Congress.*

Dix would go on after the war to lead the formation of the first formal nurses training service in the United States.

Leveling the Field:
Education Opportunities Increase

Johns Hopkins building from Harper's, 1888.

Garrett and the Ladies of the Friday Evening Fundraising Committee. *Byrn Mawr College Library.*

The mid-to-late 19th century was a time of tremendous change for the medical community at large, as major developments in the fields of sanitation, nursing and germ theory became paramount. The work of Louis Pasteur, Joseph Lister and Robert Koch would not have had nearly as great an impact without Florence Nightingale's development of sanitation protocols and the development of a well-trained, benevolent nursing force. More and more women were joining the medical field—both as physicians and nurses—despite the challenges they faced because of their sex. Increasing numbers of medical schools were accepting female students, and over the course of the century, 19 others were formed to accommodate these ambitious women. In 1893, the *Women's Medical Journal* was founded. Outside the medical community, the women's rights movement was picking up speed. The Seneca Falls Convention was held in New York in 1848, and was organized by notables Elizabeth Cady Stanton and Lucretia Mott. Susan B. Anthony was also in attendance. From the Convention came the famous Declaration of Sentiments, which chastised American society for restricting women's access to education and employment, rights to own land and the right to vote.

The Johns Hopkins University opened in 1876, the legacy of a wealthy Baltimore businessman who bequeathed funds to make the institution—and a hospital—possible. The university was opened in 1876; the hospital, designed by John Shaw Billings, opened a year later. However, funds were exhausted before a faculty could be assembled for the medical school. Four Baltimore ladies—**M. Carey Thomas** (a student at Hopkins), **Mary Elizabeth Garrett, Mary Gwinn** and **Elizabeth King**—formed the Women's Fund Committee to raise "a sum of money sufficient to establish the school of medicine and offer it to the trustees on condition that women be admitted to the school on the same terms as men." The committee, which also included women from around the nation who were dedicated to establishing equal education rights for women, raised the necessary amount and paid in two installments: $100,000 after six months of fundraising and an additional $400,000 in 1893. The medical school's board of trustees accepted the funds, believing that no women would meet the criteria established for male applicants.

The donations that helped sustain the medical school also came with three additional stipulations: the bequest was to be pub-

lished annually in the School of Medicine catalog; that a women's advisory committee was to be established to advise female students and consult with the administration; and certain educational courses were to be required prior to admission. All three stipulations were — and continue to be — met by Hopkins.

When the medical school opened in 1893, three of the 18 students were women. One of the earliest women to study medicine at Hopkins was noted author **Gertrude Stein**, who attended classes from 1897-1902 but did not take a degree.

By 1900, more than 900 women had received medical degrees from the Women's Medical College of Pennsylvania, a progressive school with a three-year course of study with intense laboratory work and excellent teaching in obstetrics. Established in 1850, it was women-led, but liberal men worked together with them on the faculty and board of trustees. Students came from as far as Japan and India, and many of the American graduates went on to become medical missionaries in foreign countries. The first male applicant to the college was not admitted until 1969, and after much discussion, the college changed its name to Medical College of Pennsylvania. Today it is part of Drexel University.

Frontier Doctors

Social and institutional attitudes toward women in medicine waxed and waned in the latter part of the 19th century. As the pendulum of social change swung back and forth, women were finding creative ways to practice medicine outside spheres of discrimination. Some found their place in the rapidly expanding frontier of the Western United States. While many of the women doctors in the frontier towns were educated at leading institutions in the East, they were more readily accepted (though not always at first) in the more rugged areas where patients had little or no choice of physicians. For many, the opportunity to prove themselves as competent physicians was all that was necessary to win over patients.

Dr. Mary "Mollie" Babcock (Moore) Atwater was one such physician. The wife of physician Frank Moore, she — like the Drs. Blackwell — was a teacher with an interest in medicine. Dr. Moore relocated with his wife to Illinois, where Mary attended the Women's Hospital Medical College of Chicago and received her medical degree in 1887. She joined the practice her husband shared with a colleague, yet was never considered an equal. After moving briefly to Louisiana, the pair eventually settled in Osage, Iowa. However, the inequity continued for Dr. Mary Moore, and she would sacrifice her marriage for her medical career, causing great scandal with a divorce. She headed west, where her friend and fellow medical school graduate Edna Tuttle had set up a practice in Salt Lake City, Utah. Religious barriers blocked her entrée to practice in Utah, so she took nursing jobs to make ends meet. She eventually secured the position of Camp Doctor for the Gold Leaf Mining Company in Montana. Though business was at first slow, once Dr. Moore — who would remarry and become Dr. Atwater — proved herself, business was swift and she was sought out for

Dr. Mary B. Atwater, taken at Bannack, Montana, circa 1922. *Photograph by F. Ward, Butte, Montana. Montana Historical Society, Helena*

Midwives

The term "midwife" was first recorded around 1300 during the Middle Ages. However, assisting in the delivery of infants has long been women's work. Older, experienced mothers assisted younger, less-experienced women through the birthing process for centuries. It can be inferred that midwifery—along with herbalism—is among the oldest female roles in the healing community.

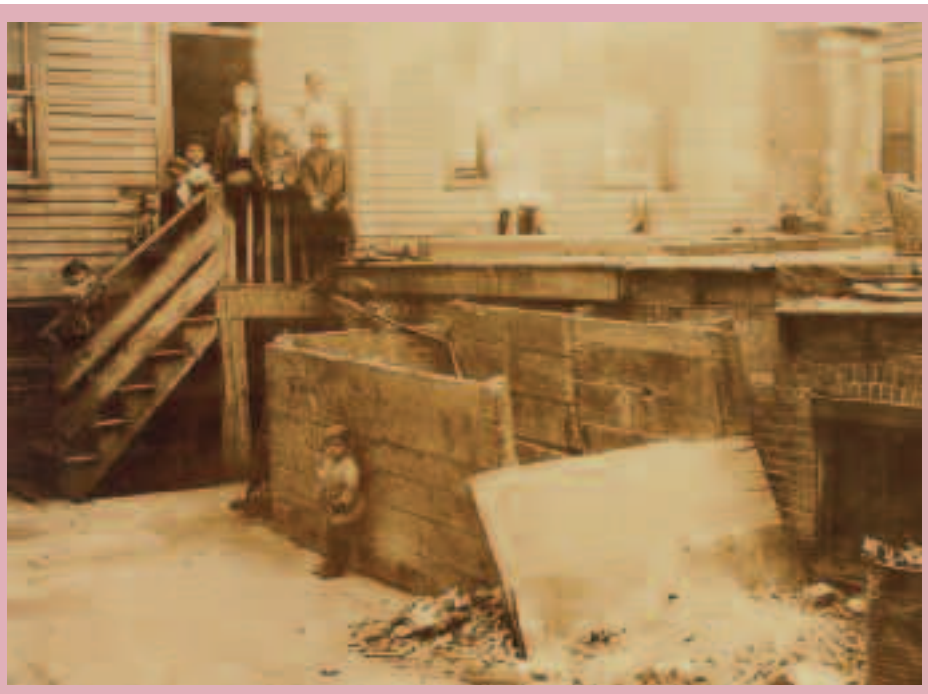
The Roman writer Hyginus around the 2nd century A.D. first wrote about a woman practicing midwifery: **Agnodike** lived in Athens in the 4th century B.C. at a time when women and slaves were forbidden to learn the art of medicine. The tale of Agnodike tells us that she cut her hair, dressed as a man, and went to study medicine. Her teacher Herophilus is indeed historically documented.

After training, Agnodike attended Athenian women in labor (proving to her patients she was a woman by lifting her cloak) and became very popular. She was accused by jealous male physicians of stealing their patients by seducing them, and was brought to court. She revealed herself as a woman, and it was only through the lobbying of Athenian women that she was saved from the death penalty. Their protest succeeded, Agnodike was spared, and the law was changed to allow free-born Athenian women to provide medical services to female patients.

The next available historical information on midwifery comes from the year 1000, when a woman in Salerno, Italy compiled a text that included chapters on women's health, obstetrics, women's learning and tradition. Midwifery appeared next in publications in the Middle Ages as Europe began its march against women healers. Midwives were part of this persecuted group and, though these women were skilled through practical experience (formal training was denied to them), we do know that even today not all deliveries are smooth and not every child is delivered healthy or alive. It soon became public belief that adverse outcomes in labor and delivery were the result of witchery and the easiest person to blame was the person assisting with the delivery: the midwife.

Following the witch hunts, history is then again relatively quiet regarding midwives from the 1700s through the early 1900s—when midwives often were asked to help with the adoption of an unwanted child. Mothers paid for this service, and were able to later attribute the absence of their child to an infectious illness. These women were also somewhat skilled at performing abortions and were commonly called, "Angel-makers." Needless to say, this gave midwifery a somewhat dubious reputation. Obviously the advent of birth control, especially oral contraceptives, changed this dramatically.

As society became more and more enamored with technology and the medical community became more specialized, fully-trained obstetricians began to replace midwives. By the mid-1900s the majority of deliveries were performed by obstetricians. However, the latter half of the 20th century brought a rise in the number of midwife-attended deliveries and today's expectant mother now has more options than ever when it comes to giving birth—ranging from doulas, traditional midwives and the certified nurse midwives that are found in hospitals around the world. The group even has its own professional organization independent of the American College of Obstetrics & Gynecology: the American College of Nurse-Midwives, incorporated in 1955. Today's midwives are fully-trained, competent and play an important role in delivering the next generation.



Entrance to the crowded, dirty house of a Midwife, rear tenement on Spruce Street, Providence, R.I.

A woman giving birth on a birth chair, from a work by Eucharius Rösslin.

care by the miners and their families. She spent the rest of her career in the western part of the country and became a strong voice for women's rights in both the medical community and in society as an advocate for suffrage. She was the third woman physician licensed in Montana, was accepted to the Montana Medical Association and was elected its second vice president that same year. She was also instrumental in helping to form the state's Board of Health. She retired in San Francisco following the death of her husband and died in 1941.

"I think that one of the reasons that most women were licensed so readily was that they were generally extremely qualified," said Dr. Volney Steele in regard to early woman doctors in Montana. "Handicapped by their sex in the masculine world, women had to have a lot on the ball to graduate in the first place and many of them had at least some post-graduate training.... Many of the men were not so well educated... there were a lot of them who had no schooling at all."

Jeannette Rankin speaking from the balcony of the National American Woman Suffrage Association building, Washington, D.C. circa 1917. *Montana Historical Society, Helena*

New Challenges: Early 20th Century

The groundwork laid by the pioneering and tenacious female physicians of the 19th century paved the way for the 20th century women who followed in their footsteps. Indeed, the 1900s would be the era in which women truly carved their niches in the world of medicine. However, the transition was not a smooth one, and the women's medical movement would undergo a significant dark period that spanned decades.

Social feminism in the 20th century reached a major peak with the passage of the 19th Amendment in 1920, which gave women in the United States the right to vote. The result of more than 50 years of struggle and protest, this achievement may have been perceived as the ultimate victory—and the women's rights movement notably slowed afterward as societal equilibrium brought changes to the lives of these professional women.

Healthcare at the turn-of-the century was moving into a more clinical or hospital setting, and physician practices were relocating from home-based offices. This change in location had significant impact on the women physicians who had previously managed to balance their home and family responsibilities with their work.

Additionally, opportunities for female faculty at medical schools decreased as more women were accepted into institutions that were newly co-educational. For although there may have been fewer restrictions on admissions, schools were still unwilling to add women to their faculties. On the closing

Medical College for Women. Students in the anatomical lecture room. *Archives and Special Collections on Women in Medicine and Homeopathy, Drexel University College of Medicine.*

Medical College for Women. *Archives and Special Collections on Women in Medicine and Homeopathy, Drexel University College of Medicine.*

of the Woman's Medical College of Pennsylvania, Dr. Emily Blackwell pointed out that the careers of female professors would come to an end. Tuition costs also rose, making it difficult for women without means to obtain the necessary education to practice the craft.

Adding to these difficulties was the inner conflict—between separatism and assimilation—that caused the women's medical movement to fold on itself. A double-edged sword, the two schools of thought had both positives and negatives for the movement. Militant separatism seemed to further divide the genders with an air of elitism, while assimilation may have diluted the zeal held by women's rights activists from earlier generations.

The fragmentation of medicine from a holistic approach into specialties occurred as care was shifted into the hospitals, and general practitioners became far less prominent. It is said that this paradigm shift removed the "human" from the equation in favor of a more body-centered approach with less attention to the patient's mental needs. In turn, nurses became much more prevalent, providing the compassion patients needed. "Knowledge of disease and its detailed investigation are not ends in themselves," wrote psychiatrist M. Esther Harding, M.D. in a letter to Bertha Van Hoosen, M.D. "They are only means to an end, namely that the human being may grow and flourish."

Women physicians at the time opted for "whole-body" fields such as pediatrics, general practice and psychiatry, along with public health and social work as they forged onward to establish themselves as publicly accepted practitioners. Their struggles were solitary and victories few until the resurgence of feminism in the 1960s.

Medical College for Women. *Archives and Special Collections on Women in Medicine and Homeopathy, Drexel University College of Medicine.*

Onward and Upward:
Modern Times

Chairman Eleanor Roosevelt, President's Commission on the Status of Women. *Schlesinger Library, Radcliffe Institute, Harvard University.*

The second wave of feminism spread throughout the United States in the late 1960s and continued until the late 1980s. Different from the suffragist feminism of the late 1900s that culminated with the suffrage victory, this reincarnated activism focused less on absolute equality and more on "unofficial" inequalities—such as a woman's right to bear children or her right to equal economic opportunities—stressing the differences between the two genders in what would become a more successful attempt at leveling the field. Notable achievements during this era included the Kennedy Administration's development of the Commission on the Status of Women, headed by **Eleanor Roosevelt**, the formation of the National Organization for Women (NOW), the passage of the Civil Rights Act of 1964 (which included a provision for sex as well as race equality) and the Education Amendments of 1972.

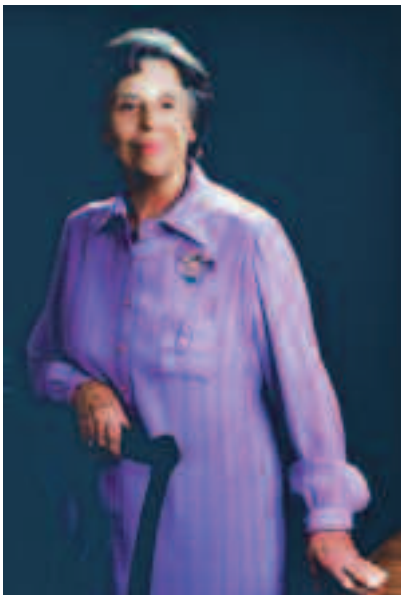
The governmental emphasis on and requirement for affirmative action programs led to significant spikes in the number of female applicants to medical schools in the early 1970s. By autumn 1976, medical schools had seen a 700 percent increase since the 1959-60 academic year. During these years, an increase was also seen in the number of women entering surgical programs—long a male domain.

As the approach to practicing medicine shifted from general to specific, women physicians also had to adjust to changes. Gone were the days of practicing from their homes as the focus shifted to technology and the hospital setting, and while many continued as general practitioners, others moved toward specialization. Pediatrics was considered a natural extension of a woman's skills, as were obstetrics and psychiatry. Slowly but surely over the course of the early 20th century a small number of practicing female physicians would permeate the majority of specialized fields. Surgery, however, was one of the last fields to accept women.

Women carrying banners and signs while marching down a street in Washington, D.C., during a demonstration in favor of equal rights for women, 1970. *The Library of Congress.*

Into the O.R.:
Women in Surgery and Urology

Elisabeth Pauline Pickett, M.D.



Surgery has long been a well-guarded bastion for male physicians. Touted as physically demanding and mentally stressful, propaganda may have deterred many women from applying for surgical residencies. Little is known about the early acceptance of women into such programs, but we do know that women started to enter the surgical arena primarily in the mid-20th century, and that numbers of female surgeons are minute compared to the number of men in the field. Urology is certainly one of the surgical subspecialties that remains predominantly male.

The first female urologist to receive certification by the American Board of Urology (ABU) was **Elisabeth Pauline Pickett, M.D.**, who trained at Sloan-Kettering Memorial Hospital under Victor Marshall, M.D. Board-certified in 1962 by the ABU and by the American Board of Surgery the year before, Dr. Pickett would go on to hold associate professorships in surgery and urology at the New York Infirmary and later head the spinal cord injury center at Castle Point, New York. The second female surgeon to be certified by the ABU was **Mary Louise Gannon, M.D.**—13 years later. In 1975, Dr. Gannon became the first woman to become a member of the American Urological Association, over 40 years after women became eligible.

Mary Louise Gannon, M.D.

While Dr. Pickett was the first female urologist, records show a small group of women physicians working in the urologic field, including Mary E. Allan, M.D., of the Women's Hospital in Pennsylvania, who attempted a right nephrectomy but abandoned the procedure because of her patient's feebleness; Marie B. Werner, M.D., who performed a nephrectomy for Wilm's Tumor in 1892; and Ann E. Brumall, M.D., who described an anterior vaginal incision and devised a lithotrite to bore through a large bladder stone. Mary Putnam Jacobi, M.D., one of the leaders in the woman's medical movement, published her theory on "faradization" for urethral syndrome in *Lancet*.

However, society mandated that women treat women, and the rotation of female physicians through the genitourinary service was controversial. We will never know how many women were pushed into other specialties though they would have made excellent surgeons. **Virginia Apgar** publicly regretted giving up a career in surgery, despite her undisputed success in the anesthesia and public health arenas.

Virginia Apgar examing an infant.

In 1928, **Mary E. Childs MacGregor, M.D.** entered the urology training program at the New York Infirmary after years of struggle and perseverance. She stimulated additional urology fellowship opportunities for women. One of the many positions that she held during her career was chief of urology at the institution that had given her training.

Dr. MacGregor was followed by **Rosemary Shoemaker, M.D.**, who trained at the University of Pennsylvania Medical School (which required four women be admitted to its freshman medical class) and went on to complete her fellowship at the Mayo Clinic under the tutelage of Drs. William Braasch, M.D. and Hugh Cabot, M.D. She initially focused her work on women and children, but ultimately turned to pathology after a relocation to Los Angeles. Similarly, **Victoire Lespinasse, M.D.,** trained by Nobel-winner Charles Huggins, M.D., at the University of Chicago, eventually became a pediatrician after at-

tempting to focus her urology practice solely on women and children. **Ann Elizabeth Kuhner, M.D.,** considered by many to be one of the finest medical urologists of her time, trained under Oswald S. Lowsley, M.D.

The American Urological Association accepted Gannon as its first female member in 1975, though the Executive Committee voted to accept qualified female urologists in 1954. It is unknown whether women simply did not apply to join the national AUA, or whether inabilities to first join a Section (a requirement for joining the association) was the obstacle.

More than 40 years after the first board-certified female surgeon entered the field, our specialty remains lagging in the number of women who choose urology, though numbers continue to rise slowly. In 1985, only 22 women were reported in the field. Two decades later, there are 792. While the numbers remain low, the increases over the past 20 years are promising. This may be attributed to an increasing interest in female treatment conditions or to an increasing number of women seeking consult from urologists rather than gynecologists, rather than simply the opening of medical — specifically surgical — education to women.

The field today boasts many great female urologists. Among them are seasoned veterans like **Jean Fourcroy, M.D.**, the fifth ABU-certified woman urologist, and Stanford University's **Linda Dairiki Shortliffe, M.D.**, the first woman to chair a leading urology program in the United States. Each year, more and more women choose residencies in urology, with sub-specialty interests ranging from female urology conditions to pediatric urology to less-gender-specific arenas such as infertility, sexual dysfunction and prostate cancer.

Jean Fourcroy, M.D.

Linda Dairiki Shortliffe, M.D.

Like Dr. van Hoosen and other leaders from the 19th century who would ultimately form the American Medical Women's Association, early women urologists forged their own path and in 1980 a small group of women urologists including Jean Fourcroy, **Larrian Gillespie** and **Catherine Galvin,** met for breakfast during the AUA Annual Meeting in San Francisco — and formed what became known as the Society for Women in Urology. Yearly breakfasts led to quarterly networking newsletters to share educational and career opportunities; the group formalized in 1995 with an executive board and bylaws. Two decades later, the group boasts more than 300 members and holds events — including a networking breakfast — during the AUA Annual Meeting each year.

The true glass ceiling that remains for women physicians lies in the leadership arena. In the late 20th century, progressive institutions, including Drexel and Johns Hopkins, began examining the issue of women in leadership and implementing programs to train and prepare women for senior opportunities as well as to promote pay and promotion equity. At Johns Hopkins, women are promoted at the same rate as men, and the medical school boasts that 18 percent of its professors are women. Drexel's program, Executive Leadership in Academic Medicine, or ELAM, is designed to prepare senior women faculty for institutional leadership, with a unique focus on challenges women in leadership positions face. The program was founded in 1995. Program fellows represent medical, dental and public health schools from around the country. Numerous of its more than 400 graduates are serving in high-level leadership positions ranging from associate dean to university president. Four of the 12 female deans at U.S. medical schools are graduates of the ELAM program.

Today we recognize that women in medicine have not yet achieved total equality in the field, and that a woman's position will continue to evolve as the gap is bridged. As more women enter the field of urology, the playing field is becoming increasingly level. The leadership arena appears to be one of the last remaining obstacles. Long restricted by the proverbial glass ceiling in organized medicine, women are clearly rising and it is inevitable that the ceiling will soon shatter. In India, four urology departments are chaired by women. Germany, on the other hand, does not have a female urology chair. The United States has only one. The AUA Board of Directors does not include a woman. However, as more women enter the field it is no longer a question of whether or not the AUA will have a woman in a leadership role, but rather, when?

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