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Addiction Medicine in America: Its Birth, Early History, and Current Status (1750-2022)

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Chapter Overview

1. The birthing and organization of addiction medicine have evolved in concert with advances in neuroscience, public health policy—or lack of such—physician interest, serial epidemics, endemic substance use, and societal understanding.
2. Scientific research from the bench to bedside to the community has informed a modern understanding of addiction as a brain disease for which prevention and treatment are possible. Terminology, attitudes, and practices have evolved with increased knowledge allowing the disease and persons affected by it to benefit from the spectrum of attention and care given to other diseases with less morbidity and mortality.
3. As is true for many medical fields, the 18th and 19th centuries were relatively “dark ages” preceding the maturation of science and medical practice in the 20th century and a new era in practice and organization that occurred as the century closed and the 21st century opened.
4. Organized medicine increasingly addressed unhealthy substance use and addiction beginning in the 1950s, when physicians organized the forerunners of today's addiction-related medical organizations. Governmental and healthcare systems followed the lead of physicians.

Introduction

The recent recognition of addiction medicine by the American Board of Medical Specialties and the Accreditation Council for Graduate Medical Education presents a timely backdrop to this review of American physicians' involvement in the prevention and treatment of alcohol and other

drug-related problems over the last two centuries. This chapter describes the birth of addiction medicine in the late 18th century, the professionalization of addiction medicine in the second half of the 19th century, its virtual collapse in the opening decades of the 20th century, and its reemergence as a fully legitimized medical subspecialty at the opening of the 21st century. "What is past is prologue"[1] is a saying of prescient value in medicine and public health. This chapter represents history still evolving and in which the reader is a participant. Indeed, William Faulkner was correct: "the past is never dead – it is never even past"1A. The modern field of addiction medicine can trace its lineage from the scholars of ancient civilizations, through Indigenous Americans on to Drs. Benjamin Rush, Ruth Fox, Robert Smith, and American Surgeon Generals, It includes today some 5000 practicing addiction physician specialists and thousands of other health professionals across disciplines who have brought the field to its new standing in mainstream medicine and health care.

This review includes early pioneers of addiction medicine, conceptual and clinical breakthroughs, the evolving settings in which addiction medicine was practiced, the larger currents in American medicine, and the evolving social policies that influenced the early practice of addiction medicine. That this brief history ends with an update of the field's progress within the American "House of Medicine" is especially poignant, as time has amply demonstrated the multisystem biological, behavioral, and societal impact of unhealthy substance use and addiction within the purview of every health professional..

The Birth of Addiction Medicine

The roots of addiction medicine began not in a young America but in the ancient civilizations of Africa and Europe. Special methods to care for persons addicted to alcohol were developed in ancient Egypt, and references to chronic intoxication as a sickness that enslaved the body and soul date to Herodotus (5th century BC), Aristotle (384-322 BC), and Seneca (4 BC-65 AD). St. John Chrysostom (1st century AD) provided one of the earliest comparisons of chronic alcohol inebriety to other diseases[2] (1). These earliest intimations of the concept of addiction and its treatment reflect the fleeting observations of individuals rather than an organized cultural response to alcohol and other drug problems.

The earliest American medical responses to alcoholism emerged within the systems of medicine practiced by Indigenous American tribes. Alcohol-related problems rose dramatically in early

[1]This quotation by William Shakespeare, which in present-day use emphasizes that history sets the context for the present, is engraved on the National Archives Building in Washington, D.C.

1.A (William Faulkner, *Requiem for a Nun* (London: Chatto & Windus, 1919)

[2]To preserve the historic perspective of this chapter, terms such as inebriety and intemperance have been maintained despite their current obsolescence. However, terms such as chronic drunkenness, drunkards, alcoholic, addict, and others have been updated in an effort to reflect modern terminology and current understanding of the disease of addiction and the persons afflicted by it (see chapter "2"—reference here the new terminology chapter).

America as alcohol became increasingly used as a tool of economic, political, and sexual exploitation in the 18th and early 19th centuries (2),(3). Indigenous tribes actively resisted these problems through political and legal advocacy, organizing sobriety-based cultural revitalization movements, and through the medical treatment of those affected. Indigenous American healers used botanical agents to suppress cravings for alcohol (hop tea), to induce an aversion to alcohol (the root of the trumpet vine), and to facilitate personal transformation within sobriety-based cultural and religious revitalization movements (4).

By the time the American Declaration of Independence was penned in 1776, there were merging parallel social trajectories and disruptions as alcohol was used to purchase enslaved Africans to work in the fields producing the new nation's major exported commodity - tobacco.

In colonial America, there was pervasive consumption of alcoholic beverages but no recognition of excessive drinking as a distinct medical problem (5). This changed in response to increased alcohol consumption (a near tripling of annual per capita alcohol consumption between 1780 and 1830), a shift in preference from fermented to more potent forms of distilled alcohol, and the emergence of a pattern of socially disruptive “frontier drinking” (6),(7). It was in this changing context that several prominent Americans “discovered” the phenomenon of addiction (8).

In 1774, the philanthropist and social reformer Anthony Benezet published a treatise, *Mighty Destroyer Displayed*, that recasts alcohol from its status as a gift from God to that of a “bewitching poison.” He noted the presence of “unhappy dram-drinkers bound in slavery” and observed that intoxication had a tendency to self-accelerate: “Drops beget drams, and drams beget more drams, till they become to be without weight or measure” (9).

Benezet's warning was followed by a series of publications by Dr. Benjamin Rush. Rush's work is particularly important given his prominence in colonial society and his role in the history of American medicine and psychiatry. Rush's 1784 pamphlet, *Inquiry into the Effects of Ardent Spirits on the Human Mind and Body*, was the first American treatise on alcoholism, and it almost single-handedly launched the American temperance movement. In this pamphlet, Rush catalogued the symptoms of acute and chronic intoxication, described the progressiveness of these symptoms, and suggested that chronic intoxication was a “disease induced by a vice” (10). Rush was the first prominent physician to claim that many persons with alcohol addiction could be restored to full health and responsible citizenship through proper medical treatment and to call for the creation of a special facility (a “Sober House”) to care for these persons (11).

Rush's writings were mirrored in the work of physicians in other countries, most notably the Edinburgh physician Dr. Thomas Trotter, whose 1788 publication, *An Essay, Medical, Philosophical, and Chemical, on Drunkenness and Its Effects on the Human Body*, shared many of Rush's ideas (12). Another contribution that influenced the subsequent development of addiction medicine in America was the work of Christopher Wilhelm Hufeland, who in 1819 described a clinical condition characterized by uncontrollable cravings for alcoholic spirits that

triggered periodic “drink storms.” Hufeland labeled this condition *dipsomania*. During the same decade, Lettsom, Armstrong, and Pearson described the condition that Thomas Sutton subsequently christened *delirium tremens* (13).

By the late 1820s, the subject of chronic intoxication was taken up in a number of medical dissertations. Most notable among these were the works of Drs. Daniel Drake and William Sweetser. Drake speculated on the causes of “habitual drinking” and hinted at what would later become the concepts of *inability to abstain* and *loss of control* (“the habit being once established, he will not, I almost say cannot, refrain”) (14). In 1828, Sweetser provided a detailed account of the pathophysiology of chronic alcohol intoxication, including depictions of the addictiveness of alcohol and the potential role of heredity. He concluded that intemperance created a “morbid alteration” in nearly all the major structures and functions of the human body. Cycles of compulsive drinking were viewed by Sweetser as the product of a devastating paradox: the poison (alcohol) was itself its only antidote (15).

The 1827 publication of the Reverend Lyman Beecher's *Six Sermons on the Nature, Occasion, Signs, and Remedy of Intemperance* exerted their own influence on the emerging concept of addiction. Bridging the gap between moral and medical models, Beecher described the intemperate as being “addicted to the sin” and suffering from an “insatiable desire for drink.” Beecher also described the early warning signs of addiction, linking these to the later signs that Rush, Drake, Sweetser, and others had catalogued. Second, he challenged these very physicians who, as in the case of Rush, had tried to get their patients to moderate their drinking by switching from distilled alcohol to fermented drinks such as wine or beer. Beecher's declaration, “There is no remedy for intemperance but the cessation of it,” marked the call for complete abstinence as a personal and social strategy for the resolution of alcohol problems (16).

Between 1774 and 1829, America “discovered” addiction through the collective observations of her physicians, clergy, and social activists. There was an emerging view that chronic intoxication was a problem with biological roots and consequences and thus the province of the physician. These earliest pioneers declared that chronic intoxication was a diseased state, and they articulated the major elements of an addiction disease concept: biological predisposition, drug toxicity, pharmacological tolerance, disease progression, morbid appetite (craving), loss of volitional control of intake, and the pathophysiological consequences of sustained alcohol and opiate ingestion. Though their treatments could involve such “heroic” methods as purging, blistering, bleeding, and the use of toxic medicines, they also used surprisingly modern strategies (e.g., aversive conditioning) and recognized many pathways to the initiation of sobriety (e.g., from religious conversion to witnessing an alcohol-related death). The writings of this period portray addiction recovery not as an enduring process but as a climactic decision. This view focused the attention of the emerging temperance movement on the pledge of lifetime abstinence (from distilled alcohol) as a central strategy in early attempts at disease recovery.

Addiction medicine emerged in the shift, which continues today, from treating medical consequences to also treating the alcohol addiction itself. The earliest practice of addiction medicine predated institutional treatment and was practiced out of the private offices of individual physicians. Alcohol was not the only drug of concern to these physicians. During the 16th and 17th centuries, physicians in Germany, Holland, Portugal, and England had begun to conceptualize opium as "a kind of poison" that required regular and increasing use that, when stopped, created a unique sickness that drove people to return to the drug (17). In 1701, the English physician John Jones (18) provided a detailed account of opiate withdrawal in his book, *The Mysteries of the Opium Reveal'd*. Three events between the early and mid-19th century profoundly altered the future of narcotic[3] addiction in America: the isolation of morphine from opium, the introduction of the hypodermic syringe, and the emergence of a patent drug industry. These events produced drugs of greater potency, created a more efficient and euphorigenic method of drug ingestion, and increased the availability and promotion of psychoactive drugs (19),(20).

Early Professionalism and Medical Advancements (1830-1900)

In 1828, Dr. Eli Todd, superintendent of the Hartford Retreat for the Insane, called for the creation of physician-directed asylums for persons with severe alcohol addiction. Under his influence, the Connecticut State Medical Society gave support to this idea in 1830 (21). A year later, Dr. Samuel Woodward, superintendent at the Hospital for the Insane at Worcester, Massachusetts, wrote a series of influential essays echoing the Connecticut recommendations. He declared:

"A large proportion of the intemperate in a well-conducted institution would be radically cured, and would again go into society with health reestablished, diseased appetites removed, with principles of temperance well-grounded and thoroughly understood, so that they would be afterwards safe and sober men" (22).

Woodward argued that intemperance was a physical disease requiring medical remedies and, siding with Beecher, declared that "the grand secret of the cure for intemperance is total abstinence from alcohol in all its forms" (22). This total abstinence position gained influence in light of the failed efforts to cure alcoholism through the use of public pledges to refrain only from distilled alcohol. Indeed, the continuing variant social behaviors resulting from fermented alcoholic drinks contributed to the temperance movement's shift from the partial pledge to the T-total pledge (Teetotalism) (23).

In the 1830s and 1840s, a series of clinical contributions to the understanding of chronic intoxication exerted considerable influence on the emerging field of addiction medicine (24). First, there were new experiments and clinical observations on the pathophysiology of alcohol,

[3]"Narcotic" in current medical terminology refers to opioids. It has been used to legally categorize other substances, including other drugs causing altered mental states, such as stupor.

such as those of Prout, Beaumont, and Percy on the effects of alcohol on the stomach and the blood (25). Dr. Robert Macnish's *Anatomy of Drunkenness* (1835) (26) offered one of the earliest typologies of alcohol addiction, noting seven clinical subtypes. Macnish also referenced a subject that continued as a medical controversy for much of the 19th century: the claimed spontaneous combustion of "alcohol inebriates" (27),(28).

In 1838, France's leading expert on alcoholism, Dr. Jean-Étienne Dominique Esquirol, argued that the disease of intemperance was a "monomania"—a "mental illness whose principal character is an irresistible tendency toward fermented beverages" (29). This was followed in 1840 by Dr. R.B. Grindrod's text, *Bacchus*, in which he declared "I am more than ever convinced that drunkenness is a disease, physical as well as moral, and consequently requires physical as well as moral remedies" (30), (31), (32).

One of the most significant milestones in the history of addiction medicine was the 1849 publication of Magnus Huss' text, *Chronic Alcoholism*. After an extensive review of the chronic effects of intoxication, Huss declared:

"These symptoms are formed in such a particular way that they form a disease group in themselves and thus merit being designated and described as a definite disease … It is this group of symptoms which I wish to designate by the name Alcoholismus chronicus" (33),(34).

Huss's text stands as the landmark addiction medicine text of the mid-19th century. It contributed a clinical term—*alcoholism*—that came into increasing medical and public popularity in the transition between the 19th and 20th centuries.

The Washingtonian Revival of the 1840s and the fraternal temperance societies and reform clubs that followed brought the issue of recovery from alcoholism onto center cultural stage. Local Washingtonian groups encountering "hard cases" needing more than an occasional sobriety support meeting began organizing lodging houses that evolved into America's first addiction treatment institutions. A multi-branched treatment field emerged in the mid-19th century. Homes for the chronically inebriated emerged out of mutual aid societies that viewed addiction recovery as a process of moral reformation (35). There were medically directed "inebriate asylums," the first of which was the New York State Inebriate Asylum, chartered in 1857 and opened in 1864 (36),(37). There were also privately franchised, for-profit addiction cure institutions such as the Keeley, Neal, Gatlin, and Oppenheimer Institutes. These institutions generated considerable controversy over their claim to have medicinal specifics that could cure addiction and their practice of hiring physicians who were in recovery from addiction (38),(39). Homes established by mutual aid societies, asylums, and the private addiction cure institutes competed with bottled patent medicine addiction cures (most containing alcohol, opium, morphine, or cocaine), some of which were promulgated by physicians, and religiously sponsored recovery colonies and rescue missions (21). By the late 1870s, large urban hospitals, such as Bellevue Hospital in New York City, had also started opening wards designed to treat chronic addiction (40). Annual admissions

of persons with alcoholism at Bellevue rose to 4190 by 1895—a number that continued to climb to more than 11 300 per year in the opening decade of the 20th century (21).

In 1870, Dr. Joseph Parrish led the creation of the American Association for the Cure of Inebriety (AACI), which brought together the heads of America's most prominent inebriate homes and asylums. The AACI bylaws posited that:

(a) Intemperance is a disease. (b) It is curable in the same sense that other diseases are. (c) Its primary cause is a constitutional susceptibility to the alcoholic impression. (d) This constitutional tendency may be either inherited or acquired (41).

The AACI published the first specialized medical journal on addiction—the Journal of Inebriety. The journal, edited by Dr. T. D. Crothers during its entire publication life (1876-1914), was filled with essays by addiction medicine specialists and with advertisements promoting various treatment institutions (42),(43). A similar inebriety treatment movement was under way in Europe, and the first international meetings of addiction medicine specialists were held during this period (44).

American physicians specializing in addiction began releasing texts on addiction and treatment methods in the 1860s: Dr. Albert Day's *Methomania: A Treatise on Alcoholic Poisoning* and Dr. W. Marcet's *On Chronic Alcoholic Intoxication.* The production of such literature virtually exploded in the 1880s and 1890s. Among the most prominent texts either written in America or that exerted a significant influence on the practice of addiction medicine in America during this period were Dr. H. H. Kane's *Drugs That Enslave: The Opium, Morphine, Chloral and Hashish Habits*; Dr. Fred Hubbard's *The Opium Habit and Alcoholism*; Dr. Asa Meyerlet's *Notes on the Opium Habit*; Dr. T. L. Wright's *Inebriism*; Franklin Clum's *Inebriety: Its Causes, Its Results, Its Remedy*; Dr. T. D. Crothers' *The Disease of Inebriety from Alcohol, Opium and Other Narcotic Drugs*; Dr. Norman Kerr's *Inebriety or Narcomania: Its Etiology, Pathology, Treatment, and Jurisprudence*; and Dr. Charles Palmer's *Inebriety: Its Source, Prevention, and Cure* (21).

The central organizing concept of 19th-century addiction medicine specialists was that of *inebriety*. Inebriety was viewed as a disease that manifested itself in numerous varieties. These varieties were meticulously detailed by clinical subpopulation and drug choice. Addiction medicine texts were often organized under such headings as *alcoholic inebriety*, *opium inebriety*, *cocaine inebriety*, and *ether inebriety*. Inebriety was viewed as a disease that sprang from multiple etiological pathways, unfolded in many diverse patterns, and had a variable course and outcome. Inebriety specialists talked eloquently about the need to individualize treatment and, by the 1880s, had begun to recognize and study the problem of posttreatment relapse (45).

The treatment methods of the two physician-directed branches of the inebriety movement (the inebriate asylums and the private addiction cure institutes) were quite different, and the conflicts between these branches reflected allopathic and homeopathic approaches to medicine in this period. The inebriate asylum physicians advocated a sustained (1-3 years), legally enforced

course of treatment that consisted of withdrawal management, collateral medical treatments, and a period of institutional convalescence. The addiction cure institute physicians boasted medicinal specifics (hypodermic injections and liquid tonics) that could “unpoison” the cells and destroy the craving and compulsion to use alcohol, opiates, and cocaine—all in 4 short weeks, cash in advance. Drug treatments within both branches included such substances as cannabis, cocaine, chloral hydrate, paraldehyde, strychnine, atropine, and apomorphine. Although some addiction medicine specialists used cocaine as a tonic during withdrawal management, most warned of the addictive properties of the drug (21).

Most inebriate asylums and addiction cure institutes treated all drug addiction, whereas others, such as Dr. Jansen Mattison's Brooklyn Home for Habitues (opened in 1891), specialized in the treatment of opiate and cocaine addiction (46). The inebriety literature of this period is filled with debates over whether medically supervised opiate withdrawal should be abrupt, rapid (over days), or sustained (over weeks and months). One also finds discussions of such contemporary issues as the problems of drug substitution and the management of the relapsed patient (44).

Understanding of the potential physiological foundations and consequences of addiction increased during the last two decades of the 19th century. Carl Wernicke's 1881 discovery of a psychosis with polyneuritis that resulted from chronic alcoholism and Sergei Korsakoff's 1887 description of an alcoholism-induced psychosis characterized by confusion, memory impairment, confabulation, hallucinations, and stereotyped and superficial speech both underscored the potential organic basis of behavior in persons with chronic alcoholism. There was considerable discussion about the potential hereditary transmission of inebriety (47).

The American Medical Temperance Association (AMTA) was founded in Washington, D.C., in 1891 at the annual meeting of the American Medical Association (AMA). Dr. N. S. Davis of Chicago was its founder and first president. The AMTA published the *Bulletin of the American Medical Temperance Association* under the editorship of Dr. J. H. Kellogg, director of the Battle Creek Sanitarium (48).

In summary, the field of addiction medicine experienced professionalization and specialization between 1830 and 1900. There were many addiction medicine pioneers who founded medically directed treatment institutions, men such as Turner, Parrish, Crothers, and Day and, later, Dr. Agnes Sparks, one of the first female physicians specializing in addiction medicine. The practice of addiction medicine shifted from the private physician's practice to the institutional setting. Within this institutional practice, there was a growing understanding of the physiological consequences of chronic alcoholism and an extension of the concept of inebriety to embrace dependence upon opium, morphine, cocaine, chloral hydrate, chloroform, and ether. There was a well-articulated addiction disease concept with elaborate protocols for withdrawal management and rehabilitation, though there was considerable conflict between allopathic and homeopathic approaches to addiction treatment.

The growing field of addiction medicine was infused with optimism in the early 1890s. Dr. T. D. Crothers proclaimed, “The future looks promising, and it is believed that the public will support inebriate asylums with increasing generosity” (49). There were reasons for Crothers' optimism. There was a new and feasible disease concept of inebriety and two addiction-related medical organizations that embraced a field that had grown from a handful of specialized treatment institutions in 1870 to several hundred by the turn of the century. But forces outside the medical profession that were stirring would drive a wedge between the physician and those addicted to alcohol and other drugs.

Demedicalization and the Collapse of Addiction Treatment (1900-1935)

There was a further profusion of addiction medicine texts in the first decade of the 20th century: J. B. Mattison's *The Mattison Method in Morphinism: A Modern and Humane Treatment of the Morphine Disease*; T. D. Crothers' *The Drug Habits and Their Treatment*; T. D. Crothers' *Morphinism*; and George Cutten's *The Psychology of Alcoholism.* The proliferation of addiction literature could not hide the fact that America's response to alcohol and other drug problems was shifting. Between 1900 and 1920, addiction treatment institutions closed in great numbers in the wake of a weakened infrastructure of the field, rising therapeutic pessimism, economic austerity triggered by unexpected depressions, and a major shift in national policy. The country turned its gaze to state and national prohibition laws as the solution to alcohol and other drug-related problems.

As inebriate homes, asylums, and the private addiction cure institutes closed in tandem with the spread of local and state prohibition laws, persons with alcoholism were relegated to other institutions. These included the “foul wards” of large city hospitals, the backward of aging state psychiatric asylums, and the local psychopathic hospital, all of which did everything possible to discourage admission for the treatment of alcoholism. Wealthy persons with alcoholism or other addiction sought discrete withdrawal management in a new genre of private hospitals or sanitariums. These latter institutions were known as “dip shops” (from *dipsomania*), “jitter joints,” or “jag farms” (21). There were also efforts to integrate medicine, religion, and psychology in the treatment of alcoholism, most notably within the Emmanuel Clinics in New England (50). For all but the most affluent, the management of alcoholism shifted from a strategy of treatment to a strategy of control and punishment via inebriate penal colonies. The large public hospitals also bore much of the responsibility for the medical care of chronic alcoholism (51).

The shift from viewing the alcohol addicted person as a person with a disease in need of help to a person of weak character was reflected in the medical literature of the early 20th century. Kurtz and Kraepelin coined the term *alcohol addiction* to depict those whose will was “not strong enough to abandon the use of alcohol even if drinking causes them serious economic, social and somatic changes” (34). Addiction medicine organizations struggled in this shifting cultural climate. The AMTA and the American Association for the Study and Cure of Inebriety merged

in 1904 to create the American Medical Society for the Study of Alcohol and Other Narcotics. In 1907, the *Journal of Inebriety* merged with *The Archives of Physiological Therapy.* This marked the progressive demise of both the *Journal of Inebriety* and its parent organization. The last issue of the *Journal of Inebriety* was published in 1914, and the American Association for the Study and Cure of Inebriety collapsed in the early 1920s after a subsequent sharp decline in demand for treatment after passage of The National Prohibition Act, also known as the Volstead Act, which promulgated prohibition in keeping with the 18th Amendment of the U.S. Constitution. Alcohol-related problems decreased dramatically in the early 1920s but rose to pre-prohibition levels by the late 1920s (21). The 18th Amendment transferred cultural ownership of alcohol problems from physicians to law enforcement authorities. A similar process was underway with drugs other than alcohol, but it took two decades for this shift in approach to fully emerge.

Early 20th-century addiction texts by physicians such as George Pettey and Ernest Bishop boldly proclaimed that narcotic addiction was a disease, and Dr. Foster Kennedy in 1914 declared that morphinism was “a disease, in the majority of cases, initiated, sustained and left uncured by members of the medical profession” (52), (53), (54). An early cohort of physicians had already begun operationalizing this addiction disease concept by advocating and offering clinic-directed withdrawal management and maintenance for persons with “incurable” narcotic addiction (55), (56), (57), (58). The medical treatment of persons addicted to narcotics was dramatically altered by passage of the Harrison Anti-Narcotic Act of 1914. This federal act designated physicians and pharmacists as the gatekeepers for the distribution of opioids and cocaine. Although this law was not presented as a prohibition law, a series of Supreme Court interpretations of the Harrison Act (particularly the 1919 *Webb vs. the United States* case) declared that for a physician to maintain a person with addiction on his or her customary dose is not “good faith” medical practice under the Harrison Act and therefore an indictable offense (19).

Despite the federal mandate against prescribing narcotics to dependent persons, physicians in 44 communities operated morphine maintenance clinics between 1919 and 1924. These clinics, which were sponsored by local health departments and even local police departments, all eventually closed under the threat of federal indictment (19), (20), (21). The Harrison Act, in effect if not intent, transferred responsibility for the care of addicted persons from physicians to criminal syndicates and the criminal justice system by threatening physicians with both loss of license and incarceration if they provided maintenance rather than rapid withdrawal management of addicted persons (59).

Physician culpability in the problem of addiction to opioids made it difficult for the AMA to oppose this government infringement in medical practice. In 1919, the AMA passed a resolution opposing ambulatory treatment, in effect opposing narcotic maintenance as treatment. There were, however, many physicians who became harsh critics of the Harrison Act and this new era of criminalization. Such criticism was reflected in the new addiction medicine texts that emerged in the 1920s, such as Dr. Ernest Bishop's *The Narcotic Drug Problem* and Dr. E. H. Williams' *Opiate Addiction: Its Handling and Treatment* (60), (61), (62).

The influence of psychiatry on the characterization and treatment of addiction increased in tandem with the decline of a specialized field of addiction medicine. Karl Abraham's 1908 essay, *The Psychological Relations between Sexuality and Alcoholism*, marked the shift from seeing alcoholism as a primary medical disorder to seeing the condition as a symptom of underlying psychiatric disturbance (63). Abraham's essay marked a long series of psychoanalytic writings that viewed alcoholism as a manifestation of latent homosexuality. In the mid-1920s, a Public Health Service psychiatrist, Dr. Lawrence Kolb, published a series of articles challenging earlier physiological explanations of narcotic addiction. Kolb portrayed addiction as a product of defects in personality—a characterization that reflected the growing portrayal of addicted persons as psychopathic and constitutionally inferior (64). The first American Standard Classified Nomenclature of Disease (1933) included the diagnoses of "alcohol addiction," "alcoholism without psychosis," and "drug addiction" and classified these conditions as personality disorders (65).

Few institutional resources existed for the treatment of alcoholism and narcotic addiction during the 1920s and early 1930s, but the growing visibility of these problems began to generate new proposals for their management. The opening of the California Narcotics Hospital at Spadra in 1928 marked the beginning of state support for addiction treatment (66). Physicians working within the federal prison system were writing about the problems posed by a growing population of incarcerated persons with addiction and advocating more specialized treatment of these individuals (67).

There were important addiction-related research studies in the 1920s. Drs. Arthur B. Light and Edward G. Torrance conducted research on opioid addiction at the Philadelphia General Hospital under the auspices of the Philadelphia Committee for the Clinical Study of Opium Addiction Research. They demonstrated that withdrawal from opiates is not life-threatening and usually not dangerous—a finding that was misused by policy makers to withhold medical care for persons addicted to opioids (68). In 1928, the Bureau of Social Hygiene published Charles Terry and Mildred Pellens' work, *The Opium Problem* (69). In this important report, Terry and Pellens made a strong argument in favor of opioid maintenance therapy as the most appropriate treatment for persons not able to sustain abstinence. Their views were viciously attacked, and it would only be years later that *The Opium Problem* would be recognized as one of the best treatises on opiate addiction ever written (57).

Medical treatments for addiction to narcotics in the first three decades of the 20th century continued to focus on managing the mechanics of narcotic withdrawal. Heroin was briefly used for withdrawal management from morphine, and its subsequent emergence as the drug of preference among opioid addicted persons bred caution in the choice of any narcotic as a withdrawal agent. This fear of exposing patients to other addicting agents led to the experimentation with a wide variety of nonnarcotic withdrawal procedures. These procedures included various belladonna treatments (scopolamine and hyoscine) that were known to induce hallucinations; peptization treatments (sodium thiocyanate) that could induce long-lasting

psychosis; sleep treatments (sodium bromide) that had a 20% mortality rate; injected Narcosan, a lipoid treatment thought to eliminate toxins and stimulate new blood formation but which actually worsened withdrawal; insulin treatments that had no effect on the withdrawal process; and serum and blood therapies in which either previously drawn blood or serum (the latter drawn from induced blisters) was reinjected as a purported aid to withdrawal management (70), (71), (72).

The first decades of the 20th century were marked by a profound therapeutic pessimism regarding treatment of alcoholism and narcotic addiction. Biological views of addiction fell out of favor and were replaced by psychiatric and criminal models that placed the source of addiction within the addicted persons' character and argued for control and sequestration of this group.

The Rebirth of Addiction Treatment (1935-1970)

After the early 20th-century collapse of systems of care for those addicted to alcohol and other drugs, addiction medicine was revived within the larger context of two movements.

The “modern alcoholism movement” was ignited by the founding of Alcoholics Anonymous (1935), a new scientific approach to alcohol problems in post repeal America led by the Research Council on Problems of Alcohol (1937) and the Yale Center of Alcohol Studies (1943) and by a national recovery advocacy effort led by the National Committee for Education on Alcoholism (1944). Two goals of this movement were to encourage local hospitals to detoxify alcohol-dependent patients and to encourage local communities to establish post hospitalization alcoholism rehabilitation centers (73). The establishment of a successful community-based noninstitutional mutual support organization for alcohol use disorders, Alcoholic Anonymous, was cofounded by Dr. Robert Smith, a physician in recovery from severe alcohol dependence. This “12-step” prototype and burgeoning movement of broader institutional and community attention to alcoholism spawned new resources for treatment from the mid-1940s through the 1960s, including “AA wards” in local hospitals, model outpatient clinics for alcoholism developed in Connecticut and Georgia, and a community-based residential model pioneered by three alcoholism programs in Minnesota: Pioneer House (1948), Hazelden (1949), and Willmar State Hospital (1950). Dr. Nelson Bradley, who led the developments at Willmar, later adapted the Minnesota Model for delivery within a community hospital. That adapted model was franchised throughout the United States in the 1980s via Parkside Medical Services (74) and was replicated by innumerable hospital-based treatment programs.

The spread of these models nationally was aided by efforts to legitimize the work of physicians in the treatment of alcoholism. Early milestones in this movement included landmark resolutions on alcoholism passed by the AMA (1952, 1956, 1967) and the American Hospital Association (1944, 1951, 1957) that paved the way for hospital-based treatment of alcoholism. The former were championed by Dr. Marvin Block, chairman of the AMA's first Committee on Alcoholism.

Midcentury alcoholism treatments included nutritional therapies, brief experiments with chemical and electroconvulsive therapies, psychosurgery, and new drug therapies, including the use of disulfiram (Antabuse), stimulants, sedatives, tranquilizers, and lysergic acid diethylamide (LSD) (21).

A mid–20th-century reform movement advocating medical rather than penal treatment of the opioid-dependent person also helped spawn the rebirth of addiction medicine. This began with the founding of state-sponsored addiction treatment hospitals and led to the creation of two U.S. Public Health Hospitals within the Bureau of Prisons—one in Lexington, Kentucky (1935), and the other in Fort Worth, Texas (1938). Many of the pioneers of modern addiction medicine and addiction research—Drs. Marie Nyswander, Jerry Jaffe, George Vaillant, and Patrick Hughes—received their initial training at these facilities. The documentation of relapse rates after community reentry from Lexington and Fort Worth confirmed the need for community-based treatment. Three replicable models of treatment emerged: therapeutic communities directed by persons in sustained recovery, methadone maintenance pioneered by Drs. Vincent Dole and Marie Nyswander, and outpatient drug-free counseling (21).

State and federal funding for alcoholism and addiction treatment slowly increased from the late 1940s through the 1960s and was followed by landmark legislation in the early 1970s that created the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA)—the beginning of the federal, state, and local community partnership that has been the foundation of modern addiction treatment. Parallel efforts were under way to provide insurance coverage for the treatment of alcoholism and other drug dependencies. The expansion of such insurance coverage in the 1960s and 1970s and the establishment of accreditation standards for addiction treatment programs by the Joint Commission on Accreditation of Hospitals set the stage for the dramatic growth of hospital-based and freestanding, private addiction treatment programs in the 1980s. NIAAA and NIDA also made heavy investments in research that led to dramatic breakthroughs in understanding the neurobiology of addiction that encouraged more medicalized approaches to severe alcohol and other drug problems (75), (76), (77).

The growing sophistication of addiction science was aided by other key organizations. The College on Problems of Drug Dependence, which dates from the Committee on Problems of Drug Dependence established in 1929, hosts an annual scientific meeting and publishes the journal *Drug and Alcohol Dependence*. The Research Society on Alcoholism, founded in 1976, also holds an annual scientific conference and publishes the journal *Alcoholism: Clinical and Experimental Research*.

Addiction Medicine Comes of Age (1970-2022)

Many factors were involved with the modernization of organized addiction medicine practice. Insights from basic, clinical, and epidemiological science and the availability of evidence-based

prevention and treatment interventions provided new understanding and tools. The pioneering brain imaging studies of Volkow and others (78) demonstrated even to the casual observer that addiction was more than a moral failing, behavioral, or criminal problem. Elucidating the addicted brain neurocircuitry also suggested prevention and intervention strategies. These imaging studies added to the emerging consensus that substance use disorder is a unified etiological and diagnostic disease state and that sub classifications based on the particular substances used, although useful, are insufficient. A further insight from neuroimaging is that so-called behavioral addiction, such as gambling and some eating disorders, appears to involve the same brain neurocircuitry as addictive substances. Thus, these disorders, which represent significant medical and public health problems, are being increasingly addressed by physician addiction specialists. Another example of cross-substance commonality is the early work of Dr. Heather Ashton (79) who through close clinical attention described in detail a protracted withdrawal syndrome from benzodiazepines. This was followed by reports of an often similar protracted withdrawal syndrome from other substance classes. Perhaps the cap to the unified theory of addiction came from the Nobel Laureate Dr. Paul Greengard, who was able to demonstrate the role of the protein DARPP-32 in the actions of multiple dependence producing drugs (80). Finally, the unified view of substance use disorders is exemplified in the 2016 Surgeon General's Report on Alcohol, Drugs, and Health: Facing Addiction in America (81). Previous U.S. Surgeon General Reports had focused only on tobacco/nicotine, and most reports from the National Institutes of Health were also substance specific. In the 2016 report, Surgeon General Vivek Murthy addressed *all* nontobacco/nicotine substances (there were two recent tobacco/nicotine and health reports, in 2014 and 2016).

Also occurring and adding to a shift in appreciation for drugs in American culture has been a series of highly visible American drug use crises and controversies with which society and medicine have had serial struggles: heroin use by US soldiers in Vietnam, the powder and crack cocaine epidemics, the national methamphetamine epidemic, and scientific and public consideration of tobacco and cannabis use. Perhaps no substance use disorder better represents the potential for the critical role of medicine and physicians in attenuating substance use harm as that of tobacco use over the last 60 years. The direct medical consequences of tobacco use are still responsible for more than 480,000 annual deaths in America. Yet, beginning with the first Surgeon General's Report on Tobacco in 1954 and carrying through this last decade, both the prevalence of tobacco use and the public's acceptance of it has plummeted. Contrasting with this is the changing status of cannabis from an illicit to a licit substance and even as a medication made licit legislatively. As we bring this history to the present, it must unfortunately be noted that beginning in the 1990s, another devastating prescription opioid epidemic began its sweep across America. Illicitly manufactured, powder fentanyl then emerged as other opioids became difficult to acquire. Illicit fentanyl is cut into illicit substances and pressed into fake pills to engage the substance users accustomed to buying diverted prescription medications. For this century’s opioid epidemic, still raging at the time this chapter was written, the words of Dr. Foster Kennedy 100 years ago are worth repeating. Opioid addiction is, he said, “a disease, in the

majority of cases, initiated, sustained and left uncured by members of the medical profession." Whereas physician complicity in the previous opioid epidemic made it difficult for organized medicine to oppose a criminal justice solution in the early 1900s, in 2016-2017, modern organized medicine responded by addressing the role of physicians in the modern opioid epidemic by advancing physician credentialing and training in addiction medicine. Thus, the current response of medicine brought physicians into the solution, rather than defaulting to a historically flawed and ineffective criminal justice approach. This response helped usher addiction medicine into new relevance and importance in medicine and public health.

Organized Addiction Medicine Today

Addiction medicine as an organized subspecialty of medical practice has been significantly advanced by six entities: the American Society of Addiction Medicine (ASAM), the American Academy of Addiction Psychiatry (AAAP), the American Board of Addiction Medicine (ABAM), The American College of Academic Addiction Medicine (ACAAM, formerly the Addiction Medicine Foundation (TAMF)), the American Board of Preventive Medicine (ABPM), the Addiction Medicine Fellowship Directors Association (which merged into ACAAM).

<u>The American Society of Addiction Medicine</u>

The American Society of Addiction Medicine can trace its roots to the establishment of the New York City Medical Committee on Alcoholism in 1951 and the 1954 founding of the New York State Medical Society on Alcoholism under the leadership of Dr. Ruth Fox, which in 1967 established itself as a national organization—the American Medical Society on Alcoholism (AMSA). AMSA evolved into the AMSA and Other Drug Dependencies and then into the ASAM.

ASAM's achievements include the following:

- Gaining ASAM membership in the AMA House of Delegates, as a national medical specialty society (achieved in June 1988)
- Advocating the AMA's addition of addiction medicine to its list of designated specialties (achieved in June 1990)
- Offering a certification and recertification process for addiction medicine specialists based on the early work of the California Society of Addiction Medicine
- Hosting its Annual Medical–Scientific Conference, State of the Art Course, Review Course, and a variety of other continuing education courses
- Publishing the following:
- The *ASAM Patient Placement Criteria*
- The *Principles of Addiction Medicine*, now in its seventh edition
- The *Essentials of Addiction Medicine*, now in its third edition

- Publishing first the *Journal of Addictive Diseases* and presently the *Journal of Addiction Medicine*
- The ASAM Standards of Care for the Addiction Specialist Physician
- Effectively advocating for national policies to broaden access to care
- Convening a Medical Specialty Action Group in 2006, which produced recommendations for the formal acceptance of addiction medicine as a specialized field of practice and the subsequent facilitation and encouragement for the new independent American Board of Addiction Medicine

In addition to a broad range of community physicians, academic leaders, and researchers who fostered the early growth of ASAM, many physicians who found recovery from addiction also became interested in the science, prevention, and treatment of substance use disorders and became ASAM members and leaders. As the science of addiction advanced and evidence-based treatments became available, a younger generation of physicians who observed negative outcomes within their own families, acquaintances, and patients with substance-related problems became interested in the field without having direct personal experience. Today, ASAM now has non-physician members and a total membership of over 4,000,

The American Academy of Addiction Psychiatrists

The AAAP (formerly the American Academy of Psychiatrists in Alcoholism and the Addictions) was established in 1985 with the goal of elevating the quality of clinical practice in addiction psychiatry. The AAAP's contributions include successfully advocating that the American Board of Psychiatry and Neurology grant addiction psychiatry (ADP) subspecialty status (1991) to psychiatrists who meet the eligibility criteria and administering an ADP certification and maintenance of certification (MOC) process. As of 2021, there were 1,393 ABPN diplomates holding active subspecialty certification in ADP, with an annual average of 35 new certificants from 2011 through 2021. These certificants completed one of the 55 available addiction psychiatry fellowships. One of the founding leaders of addiction psychiatry, Dr. Sheldon Miller, also envisioned the eventual creation of addiction subspecialties in other medical disciplines. He noted that a subspecialty does not just produce clinical experts to care for the most difficult cases but also produce well-trained educators and researchers. He wrote that "…medicine is a field that listens to its own subspecialists. This is true of every specialty: if there is a subspecialty group within the organization, it has an important voice which simply doesn't exist in organizations that do not have such subspecialties." "I offer this as a model and a challenge to other specialties, so that their boards, their Residency Review Committees, their professional organizations, might come together and hopefully do some of the same things as the field of addiction psychiatry" (77). It is the pioneering and enduring work of AAAP and the leadership of the ADP subspecialty that set the stage for all physicians to now join in meeting medicine's responsibility for the prevention and treatment of substance use disorders.

AAAP hosts an annual conference on addiction psychiatry and publishes the *American Journal on Addictions* as well as a wide variety of addiction-specific publications. AAAP promotes fellowships in addiction psychiatry (82).

The American Board of Addiction Medicine

By 2006, ASAM had held as an organizational priority for nearly three decades the acceptance of addiction medicine within the "House of Medicine" - recognition of the field by the American Board of Medical Specialties (ABMS). On three occasions since the 1980s, ASAM explored pathways for bringing addiction medicine forward through formal recognition as a specialized field of practice by the ABMS. Recognition by ABMS of a subspecialty indicates special expertise is necessary to practice in the field. Certification of a physician by an ABMS member board signifies that the physician has achieved the highest measurable American standard for competency in a field. The ASAM Directors believed that ABMS recognition was critical in bringing the field to its greatest benefit in advancing patient care and the public health. The ASAM leadership understood that if patients were to have access to qualified addiction medicine physicians and that if health systems and insurers were to offer and compensate addiction medicine services, then training and credentialing standards would need to be established as they are for other medical fields. Addiction medicine would thus have to become an ABMS and Accreditation Council for Graduate Medical Education (ACGME) recognized field for physician certification and training.

The ABMS itself was established in 1934 for the purpose of certifying physician competence in an era where there were no standard measurements or credentials by which patients or society could judge the qualifications of medical practitioners. The medical marketplace was unregulated and often dangerous: the public had no way of benchmarking a physician's skills. ABMS initially accepted primary specialties for inclusion, and by 1972, the first 10 subspecialties were recognized. In 2016, ABMS recognized and, through its 24 member boards, had certified 860,000 physicians in 37 general certificate fields and 87 subspecialty fields.

Another certifying entity is the American Osteopathic Association (AOA), which was established in 1897 for osteopathic physicians (Doctors of Osteopathic Medicine). The AOA currently offers certification in 18 specialties, and as of the last available certification report, there were 134,000 osteopathic physicians in the United States. Off these, 33% held active AOA certification and an additional group held active ABMS certification . An AOA subspecialty certificate in addiction medicine was available, although until 2017 less than 10 physicians were granted this certification. In 2017, the AOA began granting addiction medicine status to active AOA certificants who held active ABAM diplomate status. For osteopathic physicians not graduating from a fellowship the AOA opened an addiction medicine "practice pathway" for AOA certification in 2019, due to expire in 2023.

ASAM was aware that recognition by ABMS would launch the field into full membership and participation in American medicine and health care, setting the stage for the availability of prevention and treatment services by identifiable, qualified physicians. ABMS recognition would bring four critical avenues of parity to the prevention and treatment of unhealthy substance use and addiction: availability of addiction prevention and care services equivalent to those of other disease states, availability of physicians who can attend to these medical conditions, patient payment coverage for addiction medicine services through third parties on par with other conditions, and reimbursement to physicians, systems, and others who provide specialized addiction medicine services. Without parity in these dimensions, patients with unhealthy substance use and addiction would not benefit from the many available evidence-based prevention and treatment modalities catalogued in other chapters of this text.

Although the initial explorations by ASAM did not lead to ABMS recognition of addiction medicine, these efforts were critical precedents of the eventual formal recognition and acceptance of the field. In 2006, under the leadership of ASAM President Dr. Elizabeth Howell and acting on a comprehensive set of recommendations by ASAM's Medical Specialty Action Group, the ASAM directors unanimously voted to "encourage and assist" in the establishment of a new fully independent entity to bring addiction medicine into formal recognition by ABMS.

Thus, in 2007, the American Board of Addiction Medicine—a freestanding and independent organization—was incorporated as a nonprofit entity for the purposes of: promoting the public welfare by contributing to the improvement of the quality of care in the medical specialty of addiction medicine; establishing and maintaining standards of excellence in the field; establishing and maintaining standards and procedures for certification and MOC; granting to qualified physicians documents certifying that they are Diplomates of the Board; granting and issuing other documentation of recognition of special knowledge and skills in addiction medicine; suspending or revoking diplomate certificates; serve the public, physicians, hospitals, and other healthcare organizations by furnishing lists of the Diplomates of the Board; communicating to and with health professional and relevant organizations the importance of the standards, certification, and practice in addiction medicine as a means to confirm and advance the quality of care received by patients with substance use disorders.

In 2009, ASAM transferred its addiction medicine certification examination to ABAM. The ABAM Credentials Committee set the exam eligibility criteria to be consistent with the other national licensure, training, and experience requirements. The ABAM certification examination was continuously updated by collaboration between the National Board of Medical Examiners (NBME) and the ABAM Examination Committee. Clinical relevance was added to the evaluation process for all questions, and the committee was enlarged to assure that the content of the examination reflected the range of issues faced by addiction medicine physicians, including medical and psychiatric complications, observed across all medical specialties. Committee members included physicians from the specialties most usually encountering substance use disorders and their complications and basic and clinical scientists. Applicants for the

examination were accepted from all medical specialties, with significant representation from family medicine, internal medicine and psychiatry. ABAM certified just over 4,000 physicians between 2009 and 2016.

ABAM Maintenance of Certification

To assure that ABAM diplomates remain current with developments in the field of addiction medicine, the ABAM MOC Committee launched the ABAM MOC Program in 2009. Diplomates annually enroll in Part I to validate their unrestricted medical license and Part II to meet lifelong learning requirements through addiction medicine CME activities (including review and assessment of journal articles chosen by a panel of addiction medicine experts) were required to take the Part III "recertification exam" cognitive examination every 10 years and to enroll in Part IV (Practice Performance Assessment) beginning in 2017, with the requirement to complete a Practice Improvement Module every 5 years. By December 2016, 3500 ABAM diplomates were enrolled in the ABAM MOC program. The MOC participation rate of 87% was considered laudable for a field which was not yet ABMS recognized.

As noted above, certification of physicians by an ABMS member board and ACGME accreditation of postgraduate physician training (residencies and fellowships) are the highest standard of measurement for physician competencies and training in a field. Acquisition of these recognitions is an acknowledgment that the field is meeting the highest available training and practice certification standards, thus expanding the pool of physicians who can provide high quality specialty care to patients with substance use disorders. Thus, the goals of gaining ABMS level certification of physicians who practice addiction medicine and accreditation of addiction medicine fellowships by the Accreditation Council for Graduate Medical Education (ACGME) were critical to advancing the field. ABMS board certification in addiction medicine could become available to physicians of all specialties, adding substantially to the available number of certified psychiatrists in addiction psychiatry

The ABAM certification and MOC processes were developed and executed in the format of and with the standards promulgated by ABMS, thus setting up the recognition of the field within this room of the "House of Medicine."

With the formal ABMS recognition of addiction medicine in 2016, ABAM discontinued its certification exam, to be administered in the future by the ABMS member board, the ABPM.

The Addiction Medicine Foundation

The Addiction Medicine Foundation (TAMF, formerly the ABAM Foundation) was incorporated in 2007 as a nonprofit entity to support the advance of addiction medicine through (a) defining the field of addiction medicine and developing and accrediting addiction medicine fellowships, (b) advancing eventual ABMS and ACGME recognition of addiction medicine, (c) promoting prevention as a core principle for the field, and (d) aligning key stakeholders in medicine,

government, philanthropy, and public health in collaborative activities to more successfully address substance use disorders and their sequelae.

Defining the Field

In July 2010, TAMF held a retreat attended by representatives of government, academic medical education, prevention, treatment, and research organizations in the field; directors of fellowship programs in addiction medicine, addiction psychiatry, internal medicine, family medicine, and pediatrics; clinicians and trainees (residents); and clinicians in these and other specialties, including pain medicine. The purpose of the meeting was to construct the documents that define addiction medicine and its training programs. Core documents of a new field include the core competencies, educational objectives, core content, scope of practice, training program requirements, and training program accreditation policies and procedures.

The documents produced include the Addiction Medicine Scope of Practice, Addiction Medicine Core Content, and the Core Competencies for Addiction Medicine: Compendium of Educational Objectives for Addiction Medicine Fellowship Training Program Requirements for Graduate Medical Education in Addiction Medicine, and the Program Accreditation Application Form.
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Accredited Addiction Medicine Fellowships

The Addiction Medicine Foundation fostered the development of the nation's first addiction medicine fellowship programs, which they accredited until ACGME accreditation of addiction medicine training became available in early 2018. Fifty-two (52) fellowships of 12-month or longer duration were accredited in the U.S. by the TAMF between March 2011 and December 2017. Sixty fellows entered the final 2017-2018 fellow cohort.

The U.S. fellowships accredited by TAMF graduated a cumulative total of 167 physicians from their start through the 2017-18 academic year.

From 2018 forward all new fellowships were accredited by ACGME and the existing TAMF fellowships gradually transitioned to ACGME accreditation. By 2022 the annual graduating class numbered 177 and the cumulative total of graduates since 2011 had reached 639,,
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Graduated fellows are majority family medicine physicians and internists yet include pediatricians, psychiatrists, obstetrician–gynecologists, preventive medicine physicians, anesthesiologists, and others. The program directors are primarily family medicine physicians, internists and psychiatrists.
As of 2022 approximately two dozen of the 92 fellowship programs had a parallel addiction psychiatry fellowship at their institution. A preliminary survey of graduated fellows indicated that (a) the majority are internists and family medicine physicians; (b) fellows were generally

young career physicians, usually entering the fellowship within 10 years of completing a primary residency; (c) fellows had a high likelihood of remaining at the institution they trained in and in the state where they trained; and (d) the numbers of female and male fellows were almost equal, a contrast to the existing pool of ABAM diplomates who are mostly male.

A problem not unique to fellowships in a new field was encountered: securing funding for the start-up and expansion of accredited fellowship positions. At the state and local level this was spearheaded by fellowship directors who sought institutional, state and federal funding. At the national level, after a number of milestone grants were awarded from NIAAA, NIDA and philanthropies, a ten-year effort seeking federal legislative and agency support resulted in a $1,000,000 grant award from HRSA in 2020.

TAMF estimated that 125 addiction medicine fellowships will be needed to train an adequate workforce of addiction medicine subspecialists. As noted as of 2022, there were 92 ACGME accredited fellowships and additional new programs are seeking ACGME credentialing.

The American Board of Preventive Medicine: Home to Addiction Medicine

The early successes of the newly revitalized field of addiction medicine led to optimism that an enduring new medical field of medical practice could be firmly established (83). Preparing for recognition of addiction medicine by the ABMS and the ACGME, TAMF Directors interfaced with ABMS and its member boards from 2008 through 2016 to promote the readiness of the field of addiction medicine to become the 38th general primary ABMS field. However, this pathway was neither feasible nor available. Therefore, TAMF Directors met with the leadership of multiple ABMS member boards to explore the possibility of an addiction medicine multispecialty subspecialty. The TAMF leadership also explored with the leadership of ACGME the requirements and process for meeting ACGME's high fellowship training standards.

In 2014 at the request of TAMF, the ABPM, an ABMS member board, agreed to review the readiness of the field to acquire ABMS recognition, possibly through the sponsorship of the ABPM. For acceptance as an ABMS field, addiction medicine would have to demonstrate a sufficient group of credentialed physicians practicing in the field, a complete set of addiction medicine competencies and educational content, detailed program requirements for fellowship accreditation, a sufficient number of established fellowships, and the support of multiple medical and public health organizations, associations, and academic medical institutions. With these prerequisites met, ABPM began the process of seeking ABMS recognition of the field. In May 2015, ABPM's President, Dr. Denece Kesler, submitted to ABMS an application for the new field, and in March 2016, ABMS announced recognition of addiction medicine as a multispecialty subspecialty.

The first annual ABPM addiction medicine certifying exam, open to current ABMS diplomates from any field, was administered in October 2017. Thirteen hundred (1,300) physicians passed

the exam and began the first ABMS level diplomates in the new field: by 2023, there were ~4,000 diplomates. During the first few years the ABPM certification exam was administered, "time in practice" in the field of addiction medicine was an alternative to fellowship training. Known as the ABPM Practice Pathway, applicants without a fellowship who could demonstrate sufficient practice time in addiction medicine—at least 1920 hours over the previous 5 years—as well as meeting other eligibility criteria could take the certification exam without complete an addiction medicine fellowship.

With the transition of certification in addiction medicine passing from ABAM to ABPM, ABAM no longer offered a certification exam. The American Osteopathic Association has offered, as mentioned above, to ABAM diplomates who are current AOA certificants, AOA addiction medicine certification and now has a "practice pathway". ABAM diplomates who are not eligible for the ABMS or AOA certification pathway are able to maintain ABAM certification indefinitely by maintaining currency in ABAM MOC.

Transition to Accreditation of Addiction Medicine Fellowships by the Accreditation Council for Graduate Medical Education (ACGME)

In December 2015, ABPM submitted an application to ACGME for recognition of addiction medicine as a field for which fellowship training could be accredited by ACGME. ACGME "is an independent, not-for-profit, physician-led organization that sets and monitors the professional educational standards essential in preparing physicians to deliver safe, high-quality medical care to all Americans" (84). ACGME is the "gold standard" accreditation of all post–medical school physician training in the United States.

In June 2016, ACGME initiated the process to offer accreditation to addiction medicine fellowship training programs. The first programs applied for accreditation in early 2018. Concurrent with ACGME accreditation becoming available, TAMF stopped accrediting new programs and instead encourages and assists interested institutions to obtain ACGME accreditation. As of 2022, there are currently 92ACGME accredited addiction medicine fellowships across the United States, from as far east as Bayamón, Puerto Rico, and as far west as Honolulu, Hawaii.

The Addiction Medicine Fellowship Directors Association and the American College of Academic Addiction Medicine

The independent AMFDA was incorporated in 2016. Its mission was "to promote excellence in the education and training of current and future generations of physicians in evidence-based practices in the prevention and treatment of substance related-complications including addiction." AMFDA held an annual meeting actively promoting training standards in the field.

During the AMFDA meeting in 2018, AMFDA leadership joined with TAMF leadership to merge into a renamed TAF: the American College of Academic Addiction Medicine (ACAAM,

www.acaam.org). This new organization marked the beginning of a new chapter in academic addiction medicine, as well as the formal end of AMFDA and TAMF. ACAAM is dedicated to training and supporting the next generation of academic addiction medicine leaders needed to meet the ubiquitous health challenges from substance use. Central to ACAAM's mission is its commitment to meet a formidable challenge and improve diversity, equity and inclusion of the academically trained addiction medicine workforce.

In 2020, ACAAM began offering a National Addiction Medicine Didactic Curriculum for addiction medicine fellows that meets every Wednesday. The curriculum is hosted by a different fellowship program each week.

Federal Collaboration and AMERSA

Finally, several other historical initiatives should be mentioned that have advanced addiction-related medical education. The NIAAA and the NIDA have been a continuous force in the field since their establishment, bringing state and federal government and academic and community physicians into effective collaborative partnerships. In 1971, these institutes created the Career Teacher Program (1971-1981) that developed addiction-related curricula for the training of physicians in 59 US medical schools. In 1976, career teachers and others involved in addiction-related medical education and research established the Association for Medical Education and Research in Substance Abuse (AMERSA). AMERSA draws its members primarily from American medical school faculty, hosts an annual meeting, and publishes the journal Substance Abuse.

Historic Racism, Discriminatory Laws and Policies and the Importance of Anti-Racism, Diversity, Equity and Inclusion

As with so much of society, and virtually all fields in medicine and health care, addiction medicine has an unfortunate and sad history of neglect for "invisible" patient populations and systemically marginalized persons. It is of course impossible in the United Sates today to be unaware of the extraordinary moral and social costs of these omissions.

Racism is a normative experience for minoritized populations in the United States. While minoritized and marginalized populations use substances at rates similar to White individuals, minoritized populations have been and are more likely to experience more severe consequences due to their substance use. Compared to their White counterparts, Black and Latine/x populations experience greater mortality rates from substance use, greater severity of substance use disorders, and increased vulnerability to criminal justice system involvement. Black and Latine/x populations, in particular, have more significant barriers accessing and completing substance use treatment and fewer minoritized individuals report satisfactory experiences within substance use treatment than Whites. These disparities are driven by long-existing intersectional racism and drug-related stigma. Structural racism is manifested in unequal enforcement of drug laws, lower access to evidence-based treatments, and greater odds of experiencing adverse substance-related health outcomes among minoritized and marginalized populations. Structural violence is

expressed through stigma enacted against people with substance use disorders and through policies that disqualify people with substance use histories from access to public services, employment, education, and housing. These policies contribute to the poor outcomes and health disparities seen among minoritized populations with substance use disorders.

Minoritized populations experience discrimination at every stage of the judicial system and are more likely to be stopped, searched, arrested, convicted, harshly sentenced and/or burdened with a lifelong criminal record. This is particularly the case for drug law violations (83). Although Black people comprise 13 percent of the U.S. population (84) and use drugs at similar rates to people of other races (85), Black people comprise 29 percent of those arrested for drug law violations (86), and nearly 40 percent of those incarcerated in state or federal prison for drug law violations (87). With less than 5 percent of the world's population, but nearly 25 percent of its incarcerated population, the United States imprisons more people than any other nation in the world (88). Racialized drug policies with harsh and disparate sentencing requirements have led to profoundly unequal criminal justice outcomes for minoritized populations with substance use disorders. Although rates of drug use and sales are similar across racial and ethnic lines, Black and Latine/x individuals are far more likely to have criminal justice involvement and experience stricter consequences compared to White individuals (89).

American history has a legacy of discriminatory laws and policies driven by unjust practices and institutional racism, which contribute to disparities for minoritized populations with substance use and substance use disorders. One of many examples, was the motivation to pass a tax on cannabis through the Marijuana Tax Act-1937 . This was not solely a public health effort to decrease drug use, but was instead motivated by widespread racial discrimination against Mexican-Americans and Black populations and a way to penalize these populations. (90).

The U.S. "war on drugs" began in 1971 under the failed Richard Nixon presidency. This ineffective, counterproductive effort had its origin in social and political racism. America has criminalized specific drug classes since the 1875 anti-opium law in San Francisco. In that instance the law was aimed at immigrant Chinese neighborhoods.

In 1994 a Nixon deputy, John Erlichman, stated: "The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar left and black people. We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did." (91)

One of most widely cited examples of structural racism in federal policy around drugs are the mandatory minimum sentencing laws widely adopted in the 1980s and 1990s. The disparate sentencing requirements written into these laws codified structural racism into judicial policy and contributed greatly to escalating incarceration rates for minoritized individuals (92). Prompted by the death of Len Bias, a basketball star who died from what was believed to be a crack cocaine overdose days after being drafted into the NBA, Congress passed and President Reagan

signed into law the Anti-Drug Abuse Act. Federal laws required the same mandatory prison sentence for five grams of crack cocaine as 500 grams of powder cocaine. The 100-to-1 sentencing disparity between crack and power cocaine were not informed by any public safety or public health benefits. Over the years, this sentencing disparity served to propagate racial disparities in the criminal justice system and increased mass incarceration rates, particularly among Black communities.

The ongoing consequences from these policies drive not only mass incarceration, but also perpetuate differential racial access to employment, business loans, licensing, student aid, public housing and other public assistance often denied to individuals with incarceration histories. Drug convictions, separate from jail or prison time, often leads to a lifelong ban on accessing many social, economic and political benefits, such as voting (93).

Organized addiction medicine now has taken several key steps in outlining a path to the future that recognizes the importance of a workforce that not only understands the unique needs and lived experiences of the multiple populations we serve, but that also mirrors the patient populations for whom we provide care. There is now a push to transform the substance use prevention and treatment system to meet the needs of affected individuals in the spaces and communities where they reside. With a new historic and real-time perspective there is momentum to address the lack of racial, ethnic, language and cultural diversity within our institutions and training programs and to develop a robust workforce able to effectively care for minoritized and marginalized populations (94). Moreover, we are moving from the past default acceptance to tailor the provision of addiction-related care to address the differential access among minoritized populations to social determinants of health that constrain access to substance use treatment and early intervention services. The historic failure to support efforts to decriminalize substance use disorders as a means to better support and engage individuals in treatment is currently a new and broadly accepted goal of addiction medicine. In order to reduce health disparities and overcome past deficits, we must identify and promote the delivery of innovative services that acknowledge a patient's needs and preferences, and also understand and address the social context and social needs of their substance use (95). Both the American College of Academic Addiction Medicine (ACAAM) and the American Society of Addition Medicine (ASAM) have developed broad based policies and position statements that serve as models for addressing these gaps and ensuring that there is accountability and standards to ensure our own field takes action steps to address the important and emerging transformation in the field that is occurring.

This text contains 2 chapters addressing racism and social disparities of heath – Chapters ___and ___.

Future Status of Organized Addiction Medicine in America

As this history has reviewed, addiction medicine rose in the United States in the mid-19th century, collapsed in the opening decades of the 20th century, yet reemerged and became

increasingly professionalized in the late 20th century. Now, 23years in to the 21st century, addiction medicine has been formally recognized and accepted within the "House of Medicine." The field is now positioned to integrate prevention, treatment and recovery support for unhealthy substance use and addiction into health care and public health systems nationally. Concurrent with this recognition of addiction medicine into the fabric of American healthcare has been the tragic rise of the "Opioid Crisis". There has never been more addiction pathology than there is today in America. Overdose deaths in 2021 were at a historic high and still increasing. Fentanyl and fentanyl-analogues are increasingly implicated in the majority of opioid overdose deaths, vaping use among adolescents is at historic highs, and alcohol and all drug consumption has increased dramatically during the COVID19 pandemic. It is a certainty that other reformulated or novel addictive substances will continue to appear. Fortunately, modern addiction medicine has organized itself and stands ready to answer the call to action.

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