Hives of Sickness

PUBLIC HEALTH AND EPIDEMICS
IN NEW YORK CITY

Edited by David Rosner

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Contents

Robert R. Macdonald, Foreword vii

David Rosner, Introduction: “Hives of Sickness and Vice” 1

PART I
Breeding Grounds for Disease 23

Gretchen A. Condran, Changing Patterns of Epidemic Disease in New York City 27

Elizabeth Blackmar, Accountability for Public Health: Regulating the Housing Market in Nineteenth-Century New York City 42

Alan M. Kraut, Plagues and Prejudice: Nativism’s Construction of Disease in Nineteenth- and Twentieth-Century New York City 65

PART II
When Epidemic Strikes 91

Judith Walzer Leavitt, “Be Safe. Be Sure.”: New York City’s Experience with Epidemic Smallpox 95

Naomi Rogers, A Disease of Cleanliness: Polio in New York City, 1900–1990 115

Ronald Bayer, The Dependent Center: The First Decade of the AIDS Epidemic in New York City 131

PART III
The City Responds 151

Elizabeth Fee and Evelyn M. Hammonds, Science, Politics, and the Art of Persuasion: Promoting the New Scientific Medicine in New York City 155

Daniel M. Fox, The Politics of Public Health in New York City: Contrasting Styles Since 1920 197

Notes on Contributors 211

Index 213
Introduction:
"Hives of Sickness and Vice"

Memory plays an immense trick on most of us who write about the history of New York. We often depend on memoirs that shroud the city’s past in a glorious aura that contrasts dramatically with our view of today’s city. In the writings of politicians, authors, and even historians, the city of past generations seems marvelously exciting, exhilarating, organized, and wholesome. In contrast, today’s city seems overwhelmingly burdened with signs and symptoms of decay and dissolution. In the early 1970s, Otto Bettmann, who collected and catalogued thousands of photographs of nineteenth-century New York, characterized this process as the creation of a “benevolent haze” that leaves “us with the image of an ebullient, carefree America.”

This process of selective memory applies to writings about every period in the city’s past. In the 1920s, writers remembered the decade of the “gay” nineties, much of which was spent in deep economic depression. Similarly, the 1920s were later remembered nostalgically, as were the 1940s and 1950s. A recent book on racial politics in New York speaks of the “breakdown” of the city in the 1960s and beyond, implying that the largely segregated decades before were benign and perhaps more socially cohesive and coherent. Today, even the strife-filled 1960s are nostalgically recalled: “The New York days! . . . They seem far away now. . . . The stunning cosmo of the city at a time when everyone seemed to know everyone else. . . . its magic and majesty. . . . its teeming adventure. . . . the hard work and the gratification.” Even historical symbols of poverty and dislocation—such as life on the Lower East Side or arrival at Ellis Island at the turn of the century—now evoke sentimental remembrances.

Certainly, there are aspects of all these periods that should be recalled and even celebrated. But, as the history of disease in the city all too clearly illustrates, it is dangerous to lament the passing of supposedly golden eras and to characterize the present as a period of decline and disintegration. When we somberly reflect on the past, historians and laypeople alike know that “the world [of the late-nineteenth-century city] was in no way spared the problems we consider horrendously our own” whether they be homelessness, poverty, crime, or, most poignantly, disease. Similarly, when we put aside our current and very specific fears of urban violence, homelessness, poverty, tuberculosis,
or AIDS, we can see sides of the modern city that reflect its continuing vibrancy and even hope.

THE NINETEENTH-CENTURY URBAN ENVIRONMENT

This process of historical reconstruction is sometimes part of a broader political agenda that can focus attention on newcomers to the city as a cause rather than the victims, of disruptions in the life of the community. This use was particularly important in the nineteenth century, when New York City underwent profound change as millions of people came from rural America and Europe and the city’s environment and economy were transformed. Despite well-documented racial strife, class antagonisms, poverty, and the exploitation of women, antebellum New York can all too easily appear to be a time and place of relative cohesiveness and salubrity, especially when compared to the apparent disorder and poverty of the teeming industrial city of the late nineteenth century. The city’s demographic and physical transformation was hard to miss as an English-speaking, largely Protestant community became, by the 1880s, home to thousands of Catholic and Jewish immigrants and poor. New York City, only decades before a regional commercial hub, emerged as the nation’s foremost center of trade, industry, finance, and communication. Along with these changes went a profound reorganization in work, neighborhood, housing, family, and transportation. Homes, work sites, and offices were clustered around the ports and commercial sites of lower Manhattan and Brooklyn’s shoreline, spread to outlying areas of Long Island and Westchester.

The Disease Environment

For many New Yorkers in the middle and late decades of the nineteenth century, those whose memories of the city stretched back a few decades, recent change augured both possibility and problems. On the one hand, New York was obviously emerging as the nation’s preeminent center of commerce, culture, and wealth. The city’s opera house, museums, plays, amusement parks, and music halls all indicated its cultural dynamism. On the other hand, the city’s poverty, illness, crowding, and “foreignness” appeared frightening. To older, largely Protestant New Yorkers, it was difficult to deny the connection between “plagues and people.” Nor was it possible to avoid incorporating nativist beliefs into programs aimed at controlling disease. Smallpox, cholera, typhoid, yellow fever, and a host of intestinal diseases in the young and old alike accompanied the recognition of poverty, population increase, and immigration.

The fears of an elite class of antebellum New Yorkers who bemoaned the passing of a “golden age” in the city’s history were in large measure nostalgic and highly selective. High death rates and pestilence had long affected rich and poor communities alike and long marked “with shame the great City of New York.” Yet patterns of disease in recent decades appeared to contemporaries to confirm the community’s decay. By mid-century, New York had among the worst health statistics in the nation. Vital statistics gathered by the city showed that while one out of every forty-four people died in 1863 in Boston and one of forty-four in Philadelphia, New York’s rate was one in thirty-six. Even when compared with European centers such as London and Liverpool, New York fared badly. In London and Liverpool, death rates had hovered around one in forty-five since the introduction of modern sanitary practices. Despite the fact that endemic conditions such as tuberculosis and diarrheal diseases among children were clearly much more important contributors to mortality in the city than were epidemic diseases, the appearance of scourges such as cholera had a very real significance as symbols of the apparent rapidity with which the city was being transformed. Mortality data were collected and presented in a way that highlighted the city’s apparent decline.

New York did not first turn its attention to the “conditions of the poor” in mid-century, but never before had there been such a generalized sense that poor health was becoming a permanent aspect of the city’s life. Investigations of the conditions of the poor had been conducted by such civic leaders as John Griscom as early as the 1840s, but underlying the early studies was the belief that disease, poor housing, and “immoral” conditions were largely isolated to certain “susceptible” or unworthy individuals and communities. In 1859, reformers organized the New York Sanitary Association in order to agitate on behalf of a new permanent administrative body capable of responding to the city’s environmental crisis. Shortly thereafter, during the Civil War, the Sanitary Association joined with the newly formed New York Citizens’ Association. In 1864, the Citizens’ Association organized a Special Council of Hygiene and Public Health, whose first agenda item was to document the horrifying changes that had overtaken the city in the previous few decades. The association organized a district-by-district, block-to-block inspection of living conditions in Manhattan.

Documenting Disease and Death

In 1865, the Association of New York issued its final report, Sanitary Condition of the City. Dedicated to the benefit of “all classes in the city,” the report provided more than three hundred pages of detailed description of the city’s physical, social, and moral character. Coming at the end of a bloody war that had cleaved not only the nation but the communities of the city as well, the report reflected both the hopes and fears of the merchant leaders who had commissioned it. Widely distributed in a variety of forms—a book, booklets, and pamphlets—the report was used to pressure the city and the state to organize a permanent Metropolitan Board of Health the following year. Hamilton Fish, John Jacob Astor, Jr., Robert Roosevelt, August Belmont, and other
members of elite merchant society had hoped that the city could embark on a reform effort that could lift it from the depths of disorder and disease. Advocating a permanent health department, they worried that only a permanent organization with police powers could possibly control the social forces of disorder fostered by the changing character of both the population and the commercial economy.

In order to accomplish the enormous task of first documenting the reasons for the high disease and death rates in the city and then developing a plan for public and private action, the council called upon New York's leading physicians to participate in a fact-gathering expedition. Valentine Mott, the "father of vascular surgery," Willard Parker, the first American to remove an appendix successfully, John Griscom, the author of the famous 1845 study of the Sanitary Conditions of [New York's] Laboring Population, Stephen Smith, soon to head New York's new Metropolitan Board of Health and found the American Public Health Association, and other prominent physicians and civic leaders agreed to participate in a systematic inspection of the city's various sanitary inspection districts. Beginning with the observation that "pestilential diseases" laid bare "the impotence of the existing sanitary system," the physicians noted that outbreaks of disease paralyzed the commercial and political life of the community: "The people are panic-stricken and the interests of commerce suffer by the insensible and certain loss of millions." In a city of fewer than one million people, fully seven thousand to ten thousand lives could be saved, it was estimated, if proper sanitary practices could be developed. It was clear that "the relation of the health and vigorous life of a people to the State, or to commercial prosperity, requires no discussion." Disease was a commodity in the developing commercial capital that could be measured in dollars and cents. An organized response to the high disease rates was a political and social necessity.

The recent war had illustrated only too clearly that living conditions directly affected well-being and health. "Reformatory efforts, whether social or political or exclusively moral and religious," were of "paramount necessity," as illustrated by the 1863 draft riots that had so traumatized the city. "The mobs that held fearful sway in our city during the memorable out-break of violence in the month of July, 1863, were gathered in the overcrowded and neglected quarters of the city," the committee report reminded readers. "The high brick blocks and closely-packed houses where the mobs originated seemed to be literally hives of sickness and vice." The report went on to point out sardonically,

It was wonderful to see, and difficult to believe, that so much misery, disease, and wretchedness can be huddled together and hidden by high walls, unvisited and unthought of, so near our own abodes. Lewd but pale and sickly young women, scarcely decent in their ragged attire, were impudent and scattered everywhere in the crowd. But what numbers are made hideous by self-neglect and infirmity! . . . To walk the streets as we walked them, in those hours of conflagration and riot, was like witnessing the day of judgement, with every wicked thing revealed, every sin and sorrow blazingly glared upon, every hidden abomination laid before hell's expectant fire.

The elements of popular discord are gathered in those wretchedly-constructed tenant-houses, where poverty, disease, and crime find an abode. Here disease in its most loathsome form propagates itself. Unholy passions rule in the domestic circle. Everything, within and without, tends to physical and moral degradation.

The observation that housing, politics, morals, and health were all intertwined underscored the committee's perception of what needed to be done in the coming years. Of first importance was the need to document and quantify the degree of suffering, the inadequacy of services and horrors of urban life. Hence, members of the committee set out to expose "themselves to repulsive and nauseous scenes in the abodes of misery and want, and to the infectious localities and homes of disease and death, in order to be able to give an exact and complete survey of the sufferings, perils, and sanitary wants." With a voyeur's acuity, an elite's sense of authority, and the moral righteousness of missionaries, the report was a remarkable document that detailed the physical and social life of mid-nineteenth-century New York.

The Setting

New York was, in 1865, still geographically identical with Manhattan Island, located between the Hudson and East rivers and bounded on the north by Westchester, the east by Brooklyn and Long Island, and on the west by New Jersey. The island, far from being a level, neatly laid out grid of rectangular blocks, was marked by hills and gullies, streams, marshlands, and meadows. Much of the shoreline had been filled in over the preceding decades, yet areas along the rivers still had large pockets of swamp and wetlands. The densely populated area between Houston Street and Fourteenth Street and as far west as Tompkins Square was an uneven marshland, while just to the north along the water's edge lay land filled with the rubble, granite, and earth excavated from the center of the island. The sparsely populated sections of the city north from Central Park were all the more uneven, with cliffs and valleys, streams and meadows.

The report can be used as a walking guide through a city that appeared to the committee to be on the verge of anarchy and collapse. In descriptions of the various neighborhoods, we find a wealth of information about the infrastructure of a city that was doubling in population nearly every decade. The location of sewers, natural springs, ponds, and rock formations are detailed. We also can discern the environmental balance that had been disrupted by the city's rapid economic and demographic development. Just north of City Hall,
for example, in the area now occupied by the Tombs and other city and federal buildings, lay an area that had been, in the early nineteenth century, a pure-water pond known as the Collect. In 1800, it was the “largest pond on Manhattan Island,” surrounded by groves, fields, and a “high hill rising abruptly from its sides.” Its waters had been of “great depth and of unusual purity,” providing nearly ten thousand New Yorkers with fresh spring water.13

Yet, beginning in the early 1800s, the Collect was filled in as its value for tenement housing became apparent to the emerging landlord class. Quickly, the Collect became a dumping ground for dead animals and offal, giving the area “an insufferable stench.” Then a canal was dug from the Collect along Canal Street to the Hudson, and the area was graded to allow for commercial traffic through its crowded streets. By the end of the Civil War, the area was covered with tenements “containing 4 to 8 families in as many rooms.” The lodging houses of the area had “as many as thirty persons ... packed into one small room,” promoting, as in the case of one such house on Baxter Street, large and virulent outbreaks of fever.14

The description of the area provided the Sanitary Commission with a vivid understanding of how the intimate relationship between social and economic forces created a slum and ill health throughout the district. The commercial avenues of the area were paved with cobbled stones, which, in turn, provided deep cracks in which refuse collected and rotted. The streets were “very filthy,” with accumulations of manure from the horses that traversed the area, dead dogs, cats, and rats; and household and vegetable refuse that in winter accumulated to depths of three feet or more. “Garbage boxes,” rarely emptied, overflowed with offal, animal carcasses, and household waste. “Pools” of stagnant water collected in the carcasses of dead animals and over sewer drains that were generally clogged. “Fifth of every kind [was] thrown into the streets, covering their surface, filling the gutters, obstructing the sewer culverts, and sending forth perennial emanations which must generate pestiferous diseases,” reported William Thom, the sanitary inspector for the district. “Drainage is generally imperfect, the courtyards being ... below the level of the streets,” and “everything is thrown into the street and gutters at all times of the day.”15 Poorly designed sewers had been installed throughout the region, but most of the population depended upon the outdoor “water closets” and privies in the courtyards of the tenement buildings, close to wells used for drinking.

The few amenities provided were generally inadequate, often becoming public health hazards themselves. The water closets were generally “covered and surrounded with filth, so as not to be approachable.” Others were “merely trenches sunken one or two feet in the ground, the fluids of which [were] in some instances allowed to run into the courts, stones and boards ... provided to keep the feet out of filth.” Half the houses in the district had no sewers connected to them, making the stench that arose during the summer “abso-

Introduction

lutely unbearable and perilous.”16 Twenty-nine brothels, 43 stables, and 406 “dram shops” added to the generalized decay of a district that seventy-five years before had boasted the purest water in the city.

Most obvious to the various inspectors who wrote the district reports was the stench that characterized the city’s poor sections. In district after district, the inspectors detailed the smell of “sewer gas” that escaped the inadequate sewerage system, the polluted water supply, the filthy streets, the overflowing garbage, the collapsing tenement houses and other airless, overcrowded firetraps. Inspector after inspector worried that the “miasmas” created by rotting foods and filth threatened the neighborhood, and the larger city as well. They feared that the worthy and the unworthy, the young and the old, the rich and the poor all were susceptible to the fevers and plagues that were carried through the air. “Familiar with the haunts of fever and other pestilential diseases, the Sanitary Inspectors have fearlessly penetrated the dismal and unwholesome quarters where infectious poisons and deadly maladies menace inhabitants and visitants, and from whence emanate the most dreaded diseases that find their way to the more favored districts of the city.”17 In New York, “disease, debasement, and pauperism ... are found closely allied” and “seriously endanger the sanitary safety of all other classes.”18

The report accepted that the “fever-nests and small-pox fields that infest[ed] the city” were neither inevitable nor “natural.” Rather, infectious disease was controllable through social reordering and administrative action. The report observed that “come what events there may be to affect the physical, social, political, or commercial interests of the city, let it be borne in mind that Sanitary Science and its preventive skill are of more value to our fellow beings and to this city than all the curative arts of medicine and surgery.”19 The report suggested a program of street cleaning, building sewers and pure-water supplies, garbage collection, and meat and milk inspection.

Death and Disease in the New Environment

Despite the relative abundance of land across the Hudson River in New Jersey, across the East River on Long Island, and to the north in Westchester or what we now know as the Bronx, the pattern of building, economic development, and land use had created in New York some of the world’s worst crowding and most depressing health statistics. By the middle years of the century, epidemics of typhus, yellow fever, cholera, and other diseases swept through the tenements and slums of the city with fearsome impact. Despite the fact that epidemics were relatively minor contributors to overall death rates, the highly visible and often dramatic experience of seeing people literally dying in the streets had an enormous impact, affecting where and how the city developed. In the late eighteenth century, yellow fever had caused elite New Yorkers to flee north from New York to the then-salubrious and relatively distant suburb of Greenwich Village. In later years, as the city’s population grew and the
concentration of people in crowded downtown areas increased, the creation of newer communities in the upper reaches of the island promised safety and health in return for inconvenience. Some began long, almost impossible commutes from Brooklyn by ferry and from Bloomingdale and distant Harlem by wagon, horse and carriage, and, late in the century, electric trolley, to the wharves, stores, and financial and commercial centers downtown.

In part, the extraordinary crowding that characterized the city in the mid-nineteenth century was produced by its unique economy and topography. Built as a port located on an island without bridges, tunnels, efficient transportation, or communication, the city’s population originally concentrated in the relatively narrow band of land between the two rivers. Yet, more important, economic and topographic forces played a role in creating mid-nineteenth-century New York’s wretched living conditions. The commercial city had created a skewed market for land and housing; this provided landlords and absentee owners with enormous profits and denied the workers and their families wholesome living quarters. Early-eighteenth-century housing patterns in which artisans and working people lived and worked in the same dwelling were replaced by land-use patterns that separated work from home, wealthy from poor, immigrant from native, owner from occupant. The market for housing, as Elizabeth Blackmar details, created “unnatural” social relationships and market-driven scarcities of housing and land, which, in turn, created the preconditions for the disastrous health experience that the community confronted as market values replaced human values in the city’s legal and social environment. In response to this transformation of the housing market and physical environment, and accompanying social disruption, the city created a permanent institution, a department of public health, as a part of its attempt to regulate conditions that caused disease. Housing inspectors, meat and milk inspection, garbage collection and street cleaning, water distribution, and sewerage services would all be organized through a health department that sought to control the environment. Soon, the newly organized Department of Public Health would become a model for other cities throughout the nation, employing what were considered the latest “scientific” advances in bacteriology.

This book traces aspects of the public health crises that the council outlined in its mammoth document, as well as the responses to those crises. It also seeks to look at the various institutions, individuals, and diseases that have shaped our understanding of infectious disease. Although the report played a crucial role in the political drama surrounding the creation of New York’s public health department, conditions for many New Yorkers continued to be marginal at best. In the years following its creation, the Health Department would focus on cleaning the streets, regulating sewerage and waste disposal, and mandating tenement reforms such as the development of indoor privies and direct connections to sewer systems. It would also seek to become a leader in the evolving movement to develop a scientific base to public health practice. By the turn of the twentieth century, New York would emerge as preeminent in the field. Older sanitarians’ notions of the cause of disease as residing in filth and immorality would slowly be supplemented with newer, ostensibly scientific views that disease was caused by specific pathogens, bacteria, associated with specific diseases. The new thinking was that attacking the means by which particular pathogens spread, rather than engaging in programs of fumigation or street cleanups, would be more economically efficient and more effective in stopping the spread of disease. The isolation of diseased individuals, the vaccination of potential victims of infection, and laboratory analysis of milk supplies slowly gained a place alongside the more traditional sanitarian focus of the public health department. Simultaneously, these older traditional public health programs were moved to new departments of sanitation and charity.

Before the 1880s, public health workers had a different conception of health than did clinicians. While physicians saw sick patients and sought to identify the cause of disease and treat its symptoms, public health workers addressed the problem of environmental control, developing a perspective that emphasized personal and public hygiene. Sanitation, the inspection of meats, sewage, housing, immigration control, and the provision of clean water and air were critical to the mandate of the public health professional.

Tuberculosis, the Germ Theory, and Public Health Practice

The sanitarians who led reform efforts generally saw themselves as more than technical experts or trained professionals. Some had come from elite merchant families, and others had been trained in the ministry. They defined their mission as much in moral as in secular terms and believed that illness, filth, and disorder were intrinsically related. Individual transgression and social decay were equally causative of poor health. In the period before widespread acceptance of the notion that there was a specific pathogen for a particular disease entity, public health, medical practitioners, and laypeople alike understood disease in highly personal and idiosyncratic terms. Much of public health practice as well as medical therapeutics rested on the belief that disease was a reflection of individuals’ special social, personal, hereditary, and economic circumstances. As Charles Rosenberg has written, “The body was seen, metaphorically, as a system of dynamic interactions with its environment. Health or disease resulted from a cumulative interaction between constitutional endowment and environmental circumstance.” It was the special relationship between an individual and a complex, highly particularized environment that was at the root of illness. The practitioner’s therapeutic skill was measured by his or her ability to weigh, evaluate, and differentiate the patient from others who might have similar symptoms. While the medical practitioner addressed these peculiarities of the individual that might predispose him or her to