George Weisz. *Chronic Disease in the Twentieth Century: A History*. Baltimore, Johns Hopkins University Press, 2014. vii, 307 pp., \$29.95.

Gerald N. Grob. *Aging Bones: A Short History of Osteoporosis*. Baltimore, Johns Hopkins University Press, 2014. xx, 284 pp., \$24.95.

KEYWORDS: menopause, disability, poverty, health policy, gender, economic productivity

Chronic diseases have become one of the most important problems of the twenty-first century. In 2010, they comprised seven of the top ten causes of death, afflicted half of all U.S. adults, and accounted for the majority of healthcare expenditures.¹ Yet, the problem of chronic disease remains elusive. Chronic conditions are incredibly varied, ranging from asthma to arthritis, from cancers to epilepsy. They are often called “non-communicable,” yet many infectious diseases such as hepatitis and tuberculosis are considered both communicable and chronic. They can occur in anyone at any time, but as Gerald Grob points out, they are increasingly likely at older ages. Although they have become the target of recent health campaigns in the developing world, George Weisz documents how the concept of chronic disease was uniquely potent for American policy-makers. While massive resources have been poured into solving them, chronic diseases remain one of the most expansive, and unresolved, problems of medicine and policy.

How they emerged, expanded, and reshaped the meanings of health and disease is a complex history explored by two recent books in very different ways. George Weisz’s *Chronic Disease in the Twentieth Century* examines the “meta-concept” of chronic disease, its role in health policy discussions, and the focus on working-age adults that mobilized American policymakers. Gerald Grob’s *Aging Bones* offers a case study of osteoporosis, tracing how the rise of severe skeletal symptoms in a small group of older women was transformed into a global public health hazard based on bone density. Despite sharply different approaches, they address common themes. Both authors explore the growing importance of chronic diseases to research, policy, and clinical care over the course of the twentieth century. They reflect the changing relationships between aging and chronic disease and the unresolved tensions between chronic disease and disability. They demonstrate how the connections between age, gender, and poverty shaped historical narratives of chronic illness. Taken together, these books show how the very category of chronic disease became contested territory amid shifting disease boundaries and rising epidemiological importance.

In the first half of the twentieth century, infant mortality and infectious diseases came increasingly under medical and public health control. Yet, Weisz argues, this did not explain why the broad category of chronic disease would become so important to American health policies. Weisz challenges the prevailing view that the

1 National Vital Statistics Report, “Deaths: Final Data for 2013,” Tables 9 and 19, 2013 Mortality Multiple Cause Micro-data Files, CDC/National Center for Health Statistics, April 30, 2015; Jessie Gerteis, David Izrael, et al. *Multiple Chronic Conditions Chartbook: 2010 Medical Expenditure Panel Survey Data* (Rockville, Maryland: Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services, 2014), 7.

epidemiologic transition—the shifting burden from infectious to noninfectious disease—allowed chronic disease to emerge as a serious health problem. He argues that the significance of chronic disease was not merely a product of changing disease patterns or even careful medical monitoring. It was, instead, an “American *policy construct*” that transformed a group of disparate conditions into a powerful category for thinking about and organizing health policies.

Weisz identifies three central developments during the interwar period that brought new meaning to the concept of chronic disease as a national health problem. Periodic medical exams promised to detect unseen degenerative diseases in seemingly healthy adults, bringing the term “silent sickness” into the cultural lexicon (31). Public health efforts to expand beyond infectious diseases bolstered the new category of chronic disease. Finally, a series of local surveys linked welfare dependence to chronic illness.

Two mid-twentieth-century developments subsequently “catapulted” chronic disease to the status of the “nation’s number one health problem” (101–2). The National Health Survey on Chronic Disease and Disability (1935–36) began reporting sickness through a metric borrowed from unemployment surveys, known as “days of disability.” Although the category lumped together the effects of widely dissimilar conditions—respiratory diseases, orthopedic impairments, blindness, deafness, and cardiovascular diseases—it allowed health reformers to depict a dire picture of health in working-age Americans. Growing concern with chronic disease also spurred unprecedented alliances between policymakers and medical, public health, welfare, and hospital associations. Recommendations produced by joint organizations such as the Commission on Chronic Illness often addressed the problems of chronic disease and aging separately, arguing that treatment details should be based on medical need rather than age. Although the Medicare Amendment to the Social Security Act (1965) directly linked the problems of the elderly with their health concerns, for the first half of the twentieth century, chronic disease became a potent concept for health policy discussions through its importance to the health of working-age Americans.

Like the United States, France and the UK experienced substantial declines in infectious disease and increased life expectancies in the early twentieth century. But unlike the United States, France and the UK had established systems for dealing with the poor, elderly, and chronically sick. In the UK, welfare reforms were underway to address poverty, old age security, and health and unemployment insurance in the early twentieth century. Weisz argues that attention to existing reform efforts along with financial straits following two World Wars made an “open-ended problem like chronic illness” an unappealing investment (179). In France, Weisz explains, an extensive hospice system fostered the view that the infirm elderly were “an irritating administrative inconvenience” to be parked in less expensive suburban institutions (213). In both France and the UK, chronic disease remained in the background of health policy debates. By examining the distinctive approaches to the problem of chronic illness in the United States, UK, and France, Weisz illuminates a critical aspect of chronic disease history—the concept of chronic disease was historically situated, shaped in large part by national health policy aims and priorities.

In sharp contrast to Weisz's broadly synthetic account, Grob's case study of osteoporosis highlights issues that were often shifted into the background by policymakers clamoring for investments on chronic disease. The health concerns of older women, virtually absent from Weisz's examination of chronic disease, are central to Grob's analysis. In *Aging Bones*, Grob traces the rise of osteoporosis from a narrow diagnosis in older women into a widespread public health hazard attracting an international community of researchers. Prior to the 1950s, the condition was poorly understood and little researched. As a result, Grob argues, it gained little medical and policy attention. Endocrinologists linked bone loss to estrogen loss at menopause, but the diagnosis of "postmenopausal osteoporosis," described by Fuller Albright in 1940, remained limited to severe skeletal symptoms (35). In the late 1940s and 1950s, however, new medical research identified menopause as an estrogen deficiency disease, which ultimately reframed osteoporosis as a deficiency syndrome linked to estrogen loss. As estrogen therapy prescriptions expanded in the 1960s and came under heated debate in the late 1970s, researchers explored the potential benefits of estrogen for postmenopausal bone loss. Just as pharmaceutical companies launched mass education campaigns on the uses of estrogen for osteoporosis, new technologies for measuring bone mineral density made screening easier and more accessible. Together, these developments expanded osteoporosis into an international public health hazard. Even in the absence of scientific consensus—whether controversies over the effects of estrogen therapies or the level of bone loss indicating disease—pharmaceutical treatments, bone density screening, and the medical management of menopause came together to expand concerns about osteoporosis and pathologize aging bones in older women's bodies.

Debates within the scientific community were not limited to the use of estrogen therapies. Physicians debated the role of the aging process, dietary calcium, and the presence of an "antiosteoporosis" factor on bone loss (42). Researchers could not agree on the meaning of bone mineral density measurements for fracture risk, the levels of bone density needing treatment, and even the effects of hormone therapies on bone loss and fracture rates. Although such controversies persisted, routine bone density screening gained popularity and rapidly expanded the diagnostic boundaries of osteoporosis at the end of the twentieth century. Scholars such as Jeremy A. Greene have elucidated the expansion of diagnostic categories through the testing and treatment of chronic diseases (*Prescribing by Numbers*, Baltimore: Johns Hopkins University Press, 2007). Osteoporosis offers yet another case study of this central dynamic of late twentieth-century medicine—the expansion of chronic disease through screening and treatment based on ever-lower numerical thresholds of disease.

Testing and treatment of chronic diseases not only expanded diagnostic categories but also altered the relationships between aging, pathology, and clinical treatment. Prior to World War II, Grob explains, physicians considered the infirmities of aging inevitable. However, accelerating research on chronic diseases separated several chronic conditions from the process of aging, fueling new medical debates over "normal" and "pathological" processes. Despite conceptual distinctions between normal and pathological aging, in the case of osteoporosis, confusion persisted over the boundary between normal aging bones and pathological bone loss. Complicating

this binary, Weisz points out that a new public health emphasis on “healthy aging” emerged in the late twentieth century (129). Although most of the older population was ostensibly “well,” the expansion of screening measures, the treatment of disease based on lower numerical thresholds, and the high prevalence of chronic conditions documented by health surveys indicated the important role of medicine in enabling healthy aging. Taken together, these books demonstrate how growing attention to chronic disease contributed to new medical views of aging as distinct from pathological processes of disease, while also bringing these new concepts of normal, pathological, and healthy aging under intensified medical management.

While quantifying the growing toll of chronic disease, physicians and researchers became increasingly preoccupied with functional status. From the “days of disability” metric used in the National Health Survey to debates about the proper treatment of long-term illnesses, declining function with chronic disease became central to concerns about productivity, the need for institutional care, and the potential for rising health-care costs. In the case of osteoporosis, medical and public health concerns emphasized the risk of fractures and the related toll of pain, debility, and loss of function. This demonstrates an important shift away from mortality and specific disease symptoms to a concept of functional status—and the social barriers contributing to disability—as people continued to live with chronic conditions for years after diagnosis. Although neither book explicitly engages with the literature on disability studies, this represents a promising direction for future work.² While the relationships between disease, disability, and aging are far from resolved, these books demonstrate the important role of disability—whether measured by activity scales, clinical care, or economic costs—in the growing concerns about chronic disease.

The expansion of chronic conditions also brings forward questions on gender, race, and age. Grob describes the “desexualization” (208) of osteoporosis that occurred as the diagnosis expanded to include “virtually all older persons” at the end of the twentieth century (209). Can a disease be desexualized while the treatments for women remain framed by reproductive cycles and tied to estrogen therapies? How did the apparent absence of osteoporosis in African American women challenge beliefs about osteoporosis as particular to female biology? Finally, as women have comprised the majority of the American population over sixty-five since the mid-twentieth century, how did conditions of older women shape perceptions and treatment of chronic disease in the elderly? A deeper engagement with the growing profession of geriatrics and further consideration of the relationships between gender, race, and chronic conditions at older ages would be valuable insights for the history of chronic illness.

These two books make important contributions to the growing historical literature on chronic disease. Weisz analyzes the rise of chronic disease as a potent concept for American policymakers, framed around the health of working-age adults. Grob examines a narrow diagnosis in older women that grew into a global health hazard. Together,

2 Beth Linker, Daniel J. Wilson, Catherine Kudlick, and Julie Livingston have recently articulated some of the challenges and opportunities in connecting the histories of medicine and disability. See: Beth Linker, “On the Borderland of Medical and Disability History: A Survey of the Fields” and Daniel J. Wilson, Catherine Kudlick, and Julie Livingston, “Comments,” *Bull. Hist. Med.*, Winter 2013, 87(4), 499–560.

these authors demonstrate an expanding history of chronic disease ranging from the growing visibility of aging bones to the mobilizing power of the concept of chronic disease. As they make clear, chronic disease as a historical construct centers attention on policy discussions and medical research, while generating many new questions on the dynamics of gender, age, and disability in chronic disease. These fine books illustrate the disparate yet powerful components of chronic disease for understanding medical practices and policies in the twentieth and twenty-first centuries.

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Joanna Bourke. *The Story of Pain*. Oxford, UK, Oxford University Press, 2014. x, 396 pp., illus. \$34.95.

Keith Wailoo. *Pain: A Political History*. Baltimore, MD, Johns Hopkins University Press, 2014. 284 pp., illus. \$29.95.

KEYWORDS: social security, liberalism, patients, physicians, addiction, suffering, entitlements, metaphors, conservatism

The history of the senses is flourishing these days, as recent attention in both the *American Historical Review* and the *Journal of American History* (among other forums) can attest.¹ Historians of medicine have received a new invitation to the conversation with two excellent and thought-provoking books on the history of pain: Joanna Bourke's *The Story of Pain: From Prayer to Painkillers* and Keith Wailoo's *Pain: A Political History*. These very different books both persuasively argue that pain, like other sensory experiences, is profoundly shaped by culture and is a site of political struggle. It has, therefore, clearly and consequentially changed over time—in other words, pain has a history.

In pursuit of that history, both Bourke and Wailoo bring the creative and unexpected tools that have enlivened scholarship on the senses. Bourke does so by looking deeply and philosophically into the experience of pain itself, breaking it into comprehensible elements that she then tracks across the past few centuries of Anglo-American culture. Wailoo's approach is nearly the opposite: he argues that the cultural power of pain in postwar United States has been only tangentially connected to the actual experiences of people in pain and only partially influenced by the ideas of

1 *JAH*, September 2008, "The Senses in American History: A Roundtable"; *AHR*, April 2011, "The Senses in History."