EPIDEMICS IN NYC HISTORY AS OUTLINED IN 1998 BY BERT HANSEN FOR A PROPOSED EXHIBIT

(posted on-line at www.BertHansen.com on December 19, 2020*)*

Epidemic History. *Since epidemic outbreaks are surprise events that often seem to come from nowhere, they provoke a search for understanding not prompted by endemic diseases: Has this happened before? With what causes and effects? Epidemics spontaneously call for a history of prior outbreaks. As I write this head-note in December 2020, the novel coronavirus has been circulating less than twelve months, but over seventy million have been infected world-wide, with over seventeen million cases and three hundred thousand deaths in the US as of December 17. Because journalists, commentators, and historians are all making comparisons to past epidemics, this old analysis is posted in the hope some might find it of use.*

A Document. *In the 1980s, the HIV-AIDS epidemic likewise raised historical curiosity. As an openly-gay historian of medicine and an AIDS activist, I was often called to speak to community groups, health boards, medical schools, and reporters. I was even commissioned in 1988 to outline an exhibit of epidemic history for a museum. This decades-old outline cannot speak to the Covid-19 situation, of course, and it would need to be revised if such an exhibit were mounted today. This essay is posted online simply as the record of one effort. While dated, it might still be stimulating to historians and other readers today and tomorrow.*

Its Origin. *The Museum of the City of New York hired me as a free-lance consultant, first, to plan a book of essays on epidemic diseases in New York City and, second, to sketch out my ideas for an exhibit. The essays were published in 1995 as* Hives of Sickness: Public Health and Epidemics in New York City*, ed David Rosner (https://www.rutgersuniversitypress.org/hives-of-sickness/9780813521589).*

Any exhibit must balance a sweeping overview with specific artifacts, images, and information. I tried to elaborate a three-centuries-long story to illustrate the emergence and growth of public health, provide examples of social unrest and scapegoating that sometimes accompany sudden disease outbreaks, and show class and ethnic variations, while also finding a meaningful way to include the immediate epidemic that we were then struggling to control. Additionally, exhibits—unlike historians' books and articles—must display a substantial assembly of physical artifacts and period objects, not just words and images. Potential items must be discoverable and available for loan. And the toughest obstacle of all was that epidemics are transient, rarely leaving anything more substantial than words and printed images. We could not move cemeteries or display remnants of the discarded vomit, blood, bandages, or shrouds produced by epidemics. Museums do hold many surviving examples of surgeons' instruments, but they are rarely relevant to the story of infectious disease. Fear, panic, pain, and suffering seldom leave remnants beyond an individual's personal memory. Within these constraints, I developed this sketch, which the museum incorporated in its application to the National Endowment for the Humanities for an exhibit planning grant that was funded. A few months later, I resigned in frustration with the administration, and at some point, the museum abandoned the exhibit.

At the Present. *This document preserves the text given to the Museum on March 2, 1989, except for formatting adjustments required by changes in word-processing software. While written for historians and museum professionals, I believe it is intelligible for a wider audience, and I hope it might be helpful for people making new historical inquiries during the Covid-19 era.*

Additional Documents*. My files and research documents created as a consultant for the Museum were saved, and they were transferred in December 2020 to the Bert Hansen Papers, Ms. Coll. No. 2042 in Yale University Library's Division of Manuscript and Archives.*

PRELIMINARY SKETCH OF AN EXHIBIT ON EPIDEMICS IN NEW YORK CITY HISTORY
WRITTEN FOR THE MUSEUM OF THE CITY OF NEW YORK
BY
BERT HANSEN, PH.D.
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The exhibit is best arranged chronologically, with an introductory section followed by seven sections on eras in the city's history. After the introductory section, each successive section should open with a graph of population growth over that era and maps showing the city's extent at the beginning and the end of the era. These also will prepare visitors' thinking for SECTION 7 on AIDS, where maps and charts will be especially important.

ITEMS FOR DISPLAY

This sketch illustrates events, topics, and themes, but without systematically listing specific materials for exhibition except in a few cases where they were readily at hand. If space permits, there are some large, very striking items that might nicely set off the prints and smaller objects which are likely to constitute the bulk of items on display, for example, the Bellevue Hospital horse-drawn ambulance owned by the Museum (presently on display at NYU Medical Center), iron lungs, rocking beds for helping polio victims breathe, and x-ray machines. There are two risks I see in such artifacts however. They may be overwhelming in themselves and thus distracting; furthermore, as they are therapeutic devices, they might perhaps distract from the exhibit's focus on the city's responses to epidemics.

For contemporary prints of epidemics and public health, Mr. William Helfand of New York City has a major collection. My own collection is smaller, but strong in this area; some of my prints are appended in a reduced form. (*Harper's Weekly*, for example, was tabloid-sized and the originals are nearly twice this big.) Professor Daniel M. Fox of SUNY-Stony Brook has advised me that he recently located about 60 unpublished photographs of the last fifty years of public health; he also mentioned that there are WPA photographs taken in NYC clinics, some of which might be germane to epidemic disease control. [*Note added in 2020: These prints and hundreds more are now preserved for researchers in the Bert Hansen Collection at the Cushing/Whitney Library of the Yale Medical School as Ms. No. 67, with an on-line finding aid.*]

FILMS ON VIDEOTAPE

Edison's new movie technology was quickly taken up for public education during the early twentieth-century epidemics, and some of these films survive. I hope that some excerpts from the films could be processed for continuous showing as part of the exhibit. (The movies might be worth showing in full to the specialists at the opening symposium, but aren't likely to be interesting enough for the regular exhibit audience.) Professor Martin Pernick at Michigan has studied those health education films and has access to some of them. Appended to this report is one of his articles as well as a letter from him and a press release on the films held at Michigan. [*Appendices are not included in web version.]* Pernick hasn't fully explored newsreel footage about the epidemics, but I suspect that if it can be found, it may have similar value for this exhibit.

OPENING SECTION

Acknowledges that AIDS makes people curious to know if New York City has ever seen such problems before and makes people ask if there are lessons from past experience.

Hints that, though history offers no ready-made lessons, it provides insights, information, reassurance, and guidance when the comparisons are properly understood in their historical context.

Explains that in examining a long series of epidemics that have struck New York City since its founding days and in looking at the variety of responses—from doctors, government officials, religious leaders, citizens, scientists, and the media—one is struck again and again by the way that ***fear and humanitarianism*** shaped the response. (This phrase can be echoed throughout the exhibit, with clarifications of the ways that contexts shaped the fear differently and made different kinds of humanitarianism appropriate.)

Notes that, while different cities would have somewhat different histories, New York City's responses are typical of the wider pattern, and highlights several of the breakthroughs in disease control. New Yorkers can take pride in their leadership for instituting several "firsts" in the development of public health in America.

Presents a long list of all the epidemics (disease name and year) that have ever struck New York City, pointing out that the exhibit examines only a small number of them in order to show how, as the city grew, the diseases it faced changed, and how, by solving old problems, new ideas and new preventive techniques brought new ones to the fore. (The list should be repeated on the opening panel of each section, but with the whole list printed lightly and the main epidemics **of that section's era** printed in bold. This would add continuity, while giving a sense of progression to counteract the (naive) experience that this is just a random string of horrors without development.)

SECTION 1. An Isolated Community

Maps illustrate the tiny size of the early settlement, its isolated character, and its shipping connections with other ports. New York viewed as a port, a village, a trading post, and a garrison.

Explanation needed that in isolated communities of the New World, certain infections that were merely "childhood" diseases in the Old World took epidemic form when they reappeared after several years' (or decades') absence, during which time a large number of unexposed (and thus non-immune) people grew up. Key diseases are diphtheria, measles, smallpox, and yellow fever. Though yellow fever was the bigger killer, smallpox is featured here, leaving yellow fever to SECTION 2. A panel or two might also explain what diseases the colonists shared with the native Indian populations, and the ways that some infections hit them much harder.

Smallpox allows one to illustrate the first medical advance of the modern world, inoculation, developed by Cotton Mather and Dr. Boylston in Boston in 1721, and copied in other colonies, like New York, and back in Europe. (And interestingly Mather drew the idea in part from the folk medicine explained to him by a black slave.) The second major advance, vaccination for smallpox, was discovered by Jenner in England in the 1790s and soon brought to the U.S. (Smallpox also figures in important ways in SECTIONS 3 and 6.)

Images also illustrate (1) a lowly, but concerned medical profession in colonial times, (2) the rugged life with frequent disease and injury that was routine, (3) the concern for public hygiene (local laws, etc.), and (4) the mix of beliefs about atmosphere and about contagion as sources of epidemic outbreaks (quarantines, street clean-ups, concern over filth in harbor and canal, actions against numerous dogs and pigs running loose in the city's streets, etc.).

Maps, cityscapes, government decrees, ordinances, etc. along with portraits of some physicians, their instruments, and newspaper articles are among the possible exhibit items for this era.

SECTION 2. The City's Rapid Growth as a Commercial Center, a Residence, and a Leading Metropolis of the New Nation

This shorter section illustrates how unplanned and uncontrolled growth aggravated problems of sanitation, water supply, adequate housing, pig and dog control, etc. Although it has some good material, it can be lower-key than the preceding and following sections, mostly providing a transition without introducing major new issues or points.

Yellow fever is the exemplary disease for this era. Among the documents are colored "spot maps" tracing the outbreak of cases, an early step toward scientific epidemiology. This era also sees the city's first official records of disease incidence. Yellow fever is a grotesque illness, with even more profound effects on American history outside of New York City, which might be mentioned. (See Pernick on Philadelphia's 1793 epidemic and the origin of the two-party system; also, perhaps, note the ways that this disease shaped life and death in the South and Midwest through the end of the century, not to speak of the Spanish-American War and the building of the Panama Canal.) [Martin S. Pernick, "Politics, Parties, and Pestilence: Epidemic Yellow Fever in Philadelphia and the Rise of the First Party System," *The William and Mary Quarterly* 29:4 (Oct. 1972), 559-586.]

It was middle-class people fleeing the city due to a yellow-fever outbreak and settling in a rural area to the northwest that produced Greenwich Village. Bank Street took its name from the banks moving to do business there while the city was relatively deserted during the epidemic.

The transformation of Washington Square from a Potters Field into a Parade Ground and the development of its perimeter for fancy housing dates from this era. An archeological dig under Sullivan Street a few years ago turned up considerable information and numerous artifacts that speak to issues of sanitation, disease, hygiene, and health care. (See NYU M.A. thesis by Jean Howson.) [Jean Ellen Howson, "The Archaeology of Nineteenth-Century Health and Hygiene: A Case Study from Sullivan Street, Greenwich Village, New York City." MA thesis, Department of Anthropology, New York University, January 1987, viii +150 pages.]

Exhibition items could include city maps, the 1811 new gridiron plan, vignettes of Washington Square, Greenwich Village, and the downtown section, the epidemiological reports, and spot maps.

SECTION 3. Immigration, Urban Crowding, and the New Sanitation in the Commercial Capital

For this section, cholera is the exemplary disease, not only because it struck the city in 1832, 1849, and 1866, but also because (as demonstrated by Charles Rosenberg in *The Cholera Years*) responses to it by voluntary lay organizations and by government established the city's first *permanent* board of health. This novelty of 1866 was one of the first ways that New York City set the tone and agenda for public health developments throughout the country. (Looking ahead one notes that—even with the expansion of government, communications networks, and other forces which have nationalized many aspects of life in the twentieth century—public health still retains very important functions at the municipal level everywhere.)

Between about 1830 and 1870, the population of the city almost quadruples and approaches a million inhabitants. Such rapid growth precludes adequate housing, social services, and infrastructure, and these failures animate reformers to form investigative commissions—setting an important pattern of lay and philanthropic involvement in health prevention that continues to the present.

The continuation of problems with yellow fever, diphtheria, infant and maternal mortality, etc. can be noted (as will a worsening of consumption in the overcrowded housing), but cholera takes center stage for a number of reasons.

Cholera killed far fewer than many other diseases, but its sudden onset and its peculiarly distressing clinical picture (among other things, people turn blue) made it more feared. It thus prompted stronger reactions, both positive and negative. We see aggressive religious actions: demanding official days of fasting and blaming victims for immoral behavior as a cause of the disease. Endless sermons deal with cholera, though protestant preachers often left town; and even in this anti-Catholic era, the steadfast nursing by the Catholic Sisters of Charity won wide recognition and praise. The press played a major role in debating the presence of the disease (such news is bad for business), the theories of causation (a contagion theory implies quarantine, a hardship on commerce), possible actions (Nast and others powerfully caricatured the inactivity of the city government in sanitation, water supply, protection of food supply, etc.), and the role of the medical profession. Housing reform comes on the agenda. Moralism and racism play leading roles when outbreaks seem to begin in poor Irish and Black neighborhoods where prostitution was present as well.

Most commentators on AIDS and history draw their examples from the responses to cholera in nineteenth-century New York City as the parallels are many (and because Rosenberg's book is so comprehensive and graphic), and fortunately there is substantial material for exhibition including prints from *Harper's Weekly* and the other illustrated papers of the era, a section of pipe from the new Croton aqueduct (in Fraunces Tavern Museum), passages in several famous New Yorkers' diaries, cartoons, etc. (See a few examples of prints in the Appendix below.) [*Appendices are not included in web version.]*

The last part of this section (about one third) will pick up with smallpox again, as it comes to the fore in the very crowded New York of the 1870s and 1880s. Relatively effective and safe vaccination was available in this era, but was not accepted by most of the people in the city; the large number of non-immune people thus provided fertile soil for an epidemic outbreak. Some feared the vaccination itself, some regarded it as immoral or distasteful (one was injected with diseased matter taken from a calf or cow); others regarded it as a technique of Prussian autocracy that they had come to these shores to escape. (Compulsory vaccination of citizens, no matter how useful, was impossible to implement in this era, though the authorities finally managed to control the problem by requiring vaccination before children entered school. By this route, New York City triumphed over smallpox in the nineteenth century, while some U.S. jurisdictions still had tens of thousands of cases as late as the 1920s.) Nonetheless when an epidemic broke out, fear overcame most hesitations and a mobilized health force rapidly vaccinated *hundreds of thousands*.

Smallpox control, like cholera control, seemed to require the segregation of the contagious sick in isolation hospitals. Many people refused to allow their sick children to be removed and fought the police and the health officers with clubs and guns.

Smallpox and cholera thus illustrate many of the vicissitudes of disease prevention techniques and the roles that popular sentiment can play in public health. That people violently resisted the authorities' setting up cholera and smallpox hospitals in their neighborhoods has obvious parallels to today's difficulty in securing places for AIDS nursing homes. Angry New Yorkers burned down a school building that had been designated to be a cholera hospital. Staten Islanders burned down the port's quarantine hospital after years of pressing the government to find a location more distant from settlements. (Although they removed the patients before starting the fire, they also cut the hoses of the firefighters when they arrived!)

The cholera era saw the establishment of New York City's numerous monumental hospital buildings (Bellevue, Presbyterian, New York Hospital, St. Luke's, etc.), and though this development was not in direct response to the epidemics of the time, the old buildings (many still standing) do capture important aspects of the health care and public health of the nineteenth

century. If they are judged sufficiently relevant to the exhibit's themes, many striking materials will be available, including photos, engravings, newspaper reports, and floor plans. If they are willing to loan them, the exhibit would find useful and attractive the handsome scale models of New York Hospital's two nineteenth-century buildings (ca. 1800 and ca. 1860), which no longer stand. Among the historical points the hospitals make are:

(a) hospitals were first for charity patients only; home care was preferred for anyone who had a home;

(b) for much of the nineteenth century, hospitals rejected patients with contagious diseases or terminal illnesses;

(c) then starting in the 1890s the hospitals began to seek a new middle-class patient population and took out advertising to show views of the remodeled interiors, handsomely decorated and spacious private rooms, new scientific equipment, etc.

Besides the Museum's own Bellevue Hospital horse-drawn ambulance which might be displayed, the New York Academy of Medicine has other materials, such as a blue ambulance driver's cap, box of ambulance surgeon's instruments, etc. Among the more unusual smallpox-related items in the Academy's collections are vaccination shields (to cover the site of the injection or scratch) and vaccination instruments.

SECTION 4. Age of the Health Laboratory: A Scientific Revolution in Medicine and Public Health

Relevant events include:

(a) New York City's (first in the nation) permanent Health Board of 1866,

(b) the New York City meeting in 1872 at which was established the American Public Health Association,

(c) the National Board of Health founded in 1879 (abolished four years later),

(d) the rise of the germ theory exemplified in the discovery of the tuberculosis bacillus in 1882 and the cholera vibrio in 1883,

(e) the establishment of the first medical school research laboratory in 1884 with Andrew Carnegie's money at Bellevue Hospital Medical College (later NYU),

(f) the founding of the National Institutes of Health on Staten Island in 1887,

(g) the establishing in New York City of the nation's first municipal health laboratory in 1892, and

(h) the founding of Rockefeller Institute for medical research in New York City in 1901 (polio and influenza were prominent among its early concerns).

The bulk of this section concerns diphtheria, but includes some on the first steps of a revised conception (scientific and lay) of tuberculosis.

Diphtheria's story is important because it represents the first widespread therapeutic success of the new laboratory research in medicine. Because of the public's deep fear of their children dying from diphtheria, the breakthrough was immediately recognized and applauded by the public at large resulting in new popular support for research. In particular it was New York City's triumph over diphtheria that established the credibility of municipal health departments nationally among physicians and the public at large. (New York City's history sets the pattern for the changes that followed across the country.) Furthermore, diphtheria illustrates the shift from therapy to prevention and the way the public was gradually brought to accept and then expect school child immunizations, including the famous Schick test.

In the fight against tuberculosis, New York City played a flagship role on several fronts. Dr. Biggs' political savvy enabled him to establish the mandatory reporting of cases, over the

objections of private practitioners. Dr. Trudeau's sanitorium cure, associated with Lake Saranac upstate, has many New York City connections. The National Tuberculosis Association (now the American Lung Association) was founded in New York City in 1904 and directed from here. In New York City Vanderbilt money built the Shively Sanitary Tenements in 1911 (still standing; Henry Atterbury Smith, architect). The American Museum of Natural History entered health education around tuberculosis prevention.

But the two most important features of tuberculosis to be highlighted in terms of the long-term history of epidemics and public health are (1) that agitation around tuberculosis illustrates the major shift in public health practices from general sanitary cleanup to efforts at changing individuals' behavior and (2) that the reduction of tuberculosis incidence required a shift in popular conceptions away from resigned acceptance of tuberculosis due to its prevalence and ubiquity to revised thinking about it "as an epidemic" (i.e. as something preventable through public efforts). What is especially remarkable about the campaign to rouse fear of tuberculosis (in today's context) is that the health authorities did manage to create a new fear of tuberculosis without stigmatizing those who suffered from it—and this while aggressively teaching the public about its person-to-person contagiousness!

SECTION 5. The "New Public Health," The Great War, and the Depression

First change of the "new public health" is from improving general sanitation (the old way) to modifying individuals' behavior, as witnessed in new forms of tuberculosis control (see SECTION 4) and in the polio epidemic of 1916. (Drawbacks include new victim-blaming and the shift of responsibility for healthy work and living environments back onto individuals and the private sector.)

Second wide-ranging change to be noted is that when public health drops exclusive focus on epidemics it adds a major attack on endemic diseases as well, i.e. tuberculosis, venereal disease, child health, etc. (These new concerns aren't central to this exhibit, but the nature of twentieth-century public health needs to be made clear. It's also critical to establish that with this change public health begins to run into significant opposition from the medical profession. That opposition, coupled with the relative rise in status, visibility, and power of the medical profession, leads to the eventual eclipse of public health in the popular consciousness, with ensuing loss of support. This loss is elaborated more in SECTIONS 6 and 7.)

The New York City epidemics to be exhibited are polio in 1916 and influenza in 1918. Among the many issues to be illustrated in these two (well recorded) epidemics are:

(a) the tensions between machine politicians and reformers in public health,

(b) the effects of ethnic differences within the city on cooperation and prevention techniques,

(c) the popular interest in scientific research, and

(d) the lasting effects of the polio outbreak in contrast with the virtual amnesia about the (far more numerous) flu deaths.

Also, the young motion picture industry started to play a major role in health education at this time; see Appendix below. [*Appendices are not included in web version.]*

SECTION 6. The Era of Antibiotics and Modern Vaccines

For this era the story is that the epidemics are smaller and less frequent (though the polio outbreaks are a partial exception), and the scientific successes far greater. And in this story of the decline of epidemics and the rise (and antagonism) of the medical profession, the public loses its former awareness of public health, thus leading to the invisibility problem, resulting in a (proportional) decline in funding and staffing, recognized now as a "crisis" in public health.

(See 1988 National Academy of Sciences report, *The Future of Public Health*.) [*Now available free online at* https://www.nap.edu/catalog/1091/the-future-of-public-health.]

Polio allows one to illustrate both the popular responses to epidemics and the roles of philanthropy and scientific research in disease control. Tuberculosis should also be included to indicate:

(a) the magnitude of the problems (the costs of hundreds of thousands in sanatoria that the public was willingly being taxed to support),
(b) the sympathy of the response (little stigmatization of tubercular patients), and
(c) the miraculous triumph of the new drugs in the late 'forties and early 'fifties which emptied the tuberculosis hospitals almost overnight,
(d) the rapid change in consciousness of a particular disease.

Tuberculosis also touches on exhibit visitors' personal experience with the post-1950 continuation of widespread diagnostic chest x-rays to detect tuberculosis early and use of the tuberculin test to decide which persons to x-ray. (Tuberculosis is also again on the rise in the city due to poor conditions in shelters for the homeless.)

Hepatitis, though less famous, is worth illustrating for several reasons:
(a) it has important parallels to AIDS,
(b) it shows the limitations of therapy even in the age of miracle drugs,
(c) its history includes the marvelous triumph of an effective vaccine for hepatitis B developed in New York City through unusual research techniques (both the use of gay men in a special trial, the first to employ a special community of volunteers in this way, and the use of new DNA cloning techniques to produce a vaccine).

SECTION 7. AIDS

This section is hard to specify at this early stage of planning for two main reasons. First, the situation is changing fast enough that what's appropriate in 1989 may well not be so in 1992. Second, there is such a welter of issues and possible exhibit materials to select from that balance and communicability will require much deliberation. (Judgments will also be politically delicate.)

Along with pictorial images and artifacts (such as sections from the famous AIDS quilt), it will be important to illustrate the basic contours of the epidemic through bold maps, graphs, and charts. Information to be illustrated this way includes

(a) such maps as New York City population density, incidence of AIDS cases by zip code, drug prevalence by zip code, poverty by zip code, drug treatments programs by zip code,
(b) such charts or graphs as AIDS funding for each year for New York City and for the U.S., case growth year by year, etc.

It will, nonetheless, be possible to organize the AIDS Section around the same theme that began the exhibit: *response to epidemics is based in fear and humanitarianism*. This is also the place to subtly and gently float some of the "lessons" of the previous six sections, both to sum them up and to give people a positive frame for confronting what will inevitably be powerful and painful images and artifacts of the present crisis.

(a) The past can be useful in understanding the current AIDS crisis and in responding effectively, but only when the past and present contexts are fully taken into account.
(b) Panic, though common, is neither natural, nor inevitable.
(c) Epidemics reveal how religious, class, and political differences affect feelings, policies, and actions. (The point is not to devalue these factors as somehow irrelevant,

but to help us notice them and take them into account for cultivating more intelligent and humane responses.)

(d) Public leadership (both governmental and citizen) is essential for an effective and humane response to epidemic disease.

(e) Where and how New York City's history or situation is either typical of wider experience or exceptional.

With such guiding themes, it will be possible for the visitors to examine various responses to AIDS, lay and professional, governmental and personal, hideous and glorious, selfish and selfless, by the well and by the sick, by organized philanthropy and by nameless individuals, etc.

In many cases the items exhibited could be coupled with a reference back to precedents in earlier epidemics. One might perhaps even include relatively small photographs of items from earlier sections of the exhibit.

Somehow, along with showing the wide variety of responses to AIDS, it will be necessary to repeatedly convey the ways that the context (and thus meaning and evaluation) may be quite different. For example, acting out one's fear of cholera contagion from a hospital in one's neighborhood by setting it afire was not irrational (however anarchic or uncharitable it was) before the germ theory clarified the modes of transmission. Today, however, refusing to have a nursing home for AIDS patients on one's block for fear of transmission is thoroughly irrational and is a response that must be vigorously opposed, however strong its historical precedents.

APPENDIX A. A sampling of prints from personal collection of Bert Hansen of New York City. [*No appendix is included in the web post in 2020. But these prints and hundreds more are now preserved for researchers in the Bert Hansen Collection at the Cushing/Whitney Library of the Yale Medical School as Ms. No. 67, with an on-line finding aid.]*]

APPENDIX B. Materials on early health-education films by Martin Pernick of Ann Arbor, Michigan. [*Not included in the web post in 2020.*]