ASB 301/SSH 301/HST 301 Fall 2014

(SLN 88305/88306/87024) MW 9:00-10:15am Coor 174

GLOBAL HISTORY OF HEALTH

latest update: 08/24/2014

Instructor:

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Note: The continuing spread of Ebola Virus Disease in West Africa this summer makes it pressing that we pay close attention to this medical emergency as it unfolds. Therefore, the announced focus on our eight paradigmatic diseases (see below) will be supplemented this term by on-going analysis of the Ebola epidemic. Please see the special section of Blackboard for background on Ebola, news updates, and information about an Extra Credit option.

COURSE DESCRIPTION: In the early 1990s, Mary Fisher, a middle-class mother of two children from Utah, was brought to awareness of the global HIV/AIDS pandemic by her own recent infection with the disease. In a famous speech she delivered, she reminded her fellow Americans and the world that infectious disease knew no boundaries of class, race, or nationality. "HIV asks only one thing of those it attacks. Are you human?" In the past two decades, studies have shown that pathogens such as the TB and leprosy bacilli have undergone exceptionally low levels of evolutionary change because they have become so comfortable in their hosts that they have virtually stopped evolving. Again, "Are you human?" is the only question the pathogen asks.

It is that common humanity of *Homo sapiens* globally, and the common threats we face, that lays the premise for "Global History of Health." Recent developments in genetics, combined with the traditional techniques of paleopathology and History, now make it possible to create a unified narrative of the threats to health that humans have shared throughout the vast sweep of time since *Homo sapiens* evolved. Eight paradigmatic infectious diseases—tuberculosis (TB), malaria, leprosy, smallpox, plague, syphilis, cholera, and HIV/AIDS—will serve as our "tracer elements." Rather than looking for the differences between human cultures, this course looks globally at what has tied human populations together. Several diseases—TB, malaria, and leprosy—have been with human populations ever since our origins in Africa. Others have more recently evolved, yet now are distributed globally.

The central question we will ask is: why have certain human populations in certain times and places been subject to particular diseases? Using the framework of the Three Epidemiological Transitions (major shifts in the types and prevalence of disease in human societies), we will emphasize infectious diseases because these most dramatically show how incessant biological factors always *combine* with human social factors to determine the manifestations of disease. How have human migrations into new regions or continents affected disease susceptibility? What role do new technologies (farming, irrigation, railroads, planes) play in the proliferation of disease? What responses—acceptance, exclusion,

environmental intervention, scientific research—have human societies adopted? How were public health measures developed that could control disease spread? Finally, how can a long-term historical perspective help us understand current health challenges and their possible solutions?

REQUIREMENTS: This course combines perspectives from the scientific methods of genetics and bioarcheology with the interpretive methods of history. Students will be expected to master some basic principles of all three fields as we explore the long-term global history of human health. Class time will be devoted to both lecture and discussion. Conscientious preparation of the readings and active class participation are essential for the success of the course. We'll be using clickers to make daily assessments of our progress. Quizzes will be taken online, but the midterm and final will be administered in class. Aside from the Timeline assignment, written assignments should be submitted via the "Assignments" function on Blackboard. Please note that papers will NOT be accepted via electronic mail. The final course grade will be assessed as follows:

In-Class Assessments (Clicker Quizzes): 15%¹
Office Hours/Timeline Assignment: 5%

Online Quizzes (3): 15% (5% each)

Ghost Map Assignment:10%Origin of AIDS Assignment:10%Midterm Exam:20%Final Exam:25%

POLICIES:

Attendance – Regular attendance is crucial to success in this course; any more than three absences are likely to affect your grade adversely. Except for clicker quizzes, assignments because of absences must be made up by the next class period after the date due; thereafter, the grade will drop one full grade for each day late. In fairness to other members of the class, extensions cannot be granted.

Classroom Etiquette – Because we are gathered as a group to engage both in lectures and class discussion, it is vital that we maintain an atmosphere conducive to total participation. Therefore, the following rules will be observed in class:

- 1) No eating during class.
- 2) Cell phones should be switched off. No texting!!
- 3) Computers and notebooks/tablets are allowed only for active note-taking. Persons using their computers for other purposes will be asked to turn them off.
- 4) Private conversation disturbs other students' ability to concentrate on the lectures; **disruptive** talkers will be asked to leave the lecture room.
- 5) Bathroom trips and early departures are equally disruptive. People who need to leave early are asked to notify the instructor prior to the beginning of lecture.

Computer Etiquette – Many students wish to bring laptops, notebooks, or smart phones to class to take notes and consult readings as we are discussing them. Note-taking is always a good thing! However, some students abuse the Wi-Fi capabilities in the classroom to check e-mail, browse the Web, and in other ways distract themselves while in lecture. Unfortunately, such practices are also distracting for others in the classroom. Students who do not seem to be actively taking notes and engaging with discussion will be asked to put away their computers/notebooks. A hint: studies show that *taking notes by hand* is the best way to enhance retention of what you're learning!

¹ 10% of the lowest scores will be dropped when calculating the semester grade. Since an absence (non-response) will count as an 'E' in the gradebook, and since you will always be given partial credit just for responding to in-class quizzes, "just showing up" is always going to be a good idea.

E-mail Etiquette – We always spend a few minutes at the beginning of class taking care of "business" issues. Questions about assignments, etc., should be asked then. (If you're late to class, ask one of your fellow students what you missed.) This syllabus and the fuller information on our Blackboard have been designed precisely to give you as much information about the structure and expectations of the course as possible. So, before you zap off an e-mail to the instructor or the TA, ask yourself: (1) Did I check the syllabus first? (2) Did I check the Blackboard? (3) Have I asked a fellow classmate? (4) Can this wait to be asked in the next class meeting? By not overloading the instructor or TA with excessive e-mails, you help insure that we'll have time to answer urgent or personal matters when we need to. A final point: remember that all e-mails to the instructor or the TA should be considered "professional correspondence." Monitor your language, check your spelling and grammar, and strive to conform to all standards of professional discourse. And remember to say "Thank You!"

Written Work – All papers should conform to basic guidelines of neatness, orthography, standardized formatting (including numbered pages), etc. We do not accept submission of papers via e-mail; all work should be submitted via the "Assignments" function on Blackboard. ALWAYS keep a copy as backup.

Academic Honesty – Here's the ASU Provost's statement: "Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see http://provost.asu.edu/academicintegrity.""

And here's my statement: No ethic is more important to the scientist's or historian's integrity than scrupulous use of, and documentation of, sources used. Improper use of others' work (whether obtained from printed, electronic, or oral sources) is a violation of academic standards and will result in an automatic failing grade for the course. We will spend class time discussing the nature of plagiarism and proper methods of citation. Additional information can be found on Blackboard under "Academic Honesty." Students are encouraged to bring their questions about this matter to the instructor or the TA.³

Late Papers – See under "Attendance" above.

Student Support and Disability Accommodations – ASU offers support services through Counseling (http://students.asu.edu/counseling), the Learning Resources Center (www.asu.edu/lrc), and the Disability Resource Center (http://www.asu.edu/studentaffairs/ed/drc/). If you are a student in need of special arrangements we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

IMPORTANT DATES:

WEEK 1: Monday, August 25 – Chronology and Terminology Quizzes open on Blackboard Wednesday, August 27 – Experimental use of clickers...bring your clickers today and make sure that they work; this is your only chance before they become mandatory every day

WEEK 2: Monday, September 1 – **Labor Day: NO CLASS**Wednesday, September 3: clickers must be operational by today
WEEK 3, all week: individual appointments to discuss Timeline

² Historians and anthropologists have different citation conventions, which themselves differ from usages in other disciplines. Depending on your major, please learn to use one or the other *consistently*. For History, the standard format is Chicago Manual of Style or Turabian.

³ See also Charles Lipson, *Doing Honest Work in College: How to Prepare Citations, Avoid Plagiarism, and Achieve Real Academic Success* (Chicago: University of Chicago Press, 2004).

Wednesday, September 10: Chronology and Terminology Quizzes close at midnight

WEEK 4: all week, September 14-20: Phylogenetic Trees Quiz (online)

WEEK 6, Wednesday, October 1: Chronology and Terminology Quizzes *re-open*; automatic 5 pts extra credit on midterm for 100% score, 4 pts for 90-99%, 3 pts for 80-89%

WEEK 7, Wednesday, October 8: MIDTERM EXAM

WEEK 8, Monday, October 13: no class today (Fall Break)

WEEK 10, Tuesday, October 28: Ghost Map Assignment (due by midnight)

WEEK 11, Tuesday, November 5: Course Withdrawal Deadline

WEEK 15, Tuesday, December 2: Origin of AIDS Assignment (due by midnight)

Wednesday, December 10, 7:30 - 9:20 AM: FINAL EXAM

TEXTS AND EQUIPMENT:

Required – for purchase:

Steven Johnson, *The Ghost Map: The Story of London's Most Terrifying Epidemic – and How It Changed Science, Cities, and the Modern World* (New York: Riverhead Books, 2006), ISBN 978-1594482694

Jacques Pepin, *The Origin of AIDS* (Cambridge: Cambridge University Press, 2011), ISBN 9780521186377

TurningPoint compatible clicker

Required – e-book (available through ASU Library):

Anne F. Grauer, ed., *A Companion to Paleopathology* (New York: Wiley-Blackwell, 2012) (hereafter cited as "Grauer, *Companion*"); you are, of course, welcome to purchase the hardbound copy of this book if you prefer, but it's expensive! We'll be reading about eight chapters in it.

Recommended:

All other readings will be available via the "Weekly Readings" button on our course Blackboard.

BLACKBOARD: This course has a Blackboard site that functions as a supplement (but not a substitute!) to the work we do in class. All materials discussed in class—syllabus, announcements, quiz questions, lecture slides, study guides—will be posted on Blackboard within 24 hours of class meetings, if not before. The Blackboard also has links to numerous websites, dictionaries, and other resources that can help you out when you're doing your class or exam preparation. They can also lead you to more information about topics that we do not have time to discuss in class. Finally, we have added an "At the Movies!" button and a "Book Club" with information on movies and non-academic books that dramatize major moments or themes in the history of human health. So on a Saturday night when you're too tired to study, load up a video or pull out a book, throw some popcorn in the microwave, and kick back for some fun!

WEEKLY READINGS: Under "READINGS" every week, there are listed all the readings you will be responsible for on the exams. Those that are starred (*) will be the subject of in-class clicker quizzes, so be sure to prioritize those, having them done by the first day of lecture every week. But be sure to go over the other readings as well, since they will be the subject of lectures and you'll be responsible for them on the exams. Items listed under "Supplemental Readings" are *not* required; they are provided for those seeking further information about topics discussed in lecture.

HONORS CREDIT: Given my other obligations this semester, it is regretted that individualized Honors projects cannot be supervised.

SOME USEFUL LINKS:

- Blackboard Help for Students: http://asu.force.com/kb/articles/Informational/Blackboard-Help-for-Students/
- Blackboard Test Survival Guide: http://asu.force.com/kb/articles/Informational/Blackboard-Test-Survival-

Guide/

• Undergraduate Academic Advising: http://asu.force.com/kb/articles/FAQ/How-do-I-schedule-an-appointment-with-an-undergraduate-academic-advisor/

LECTURE TOPICS

WEEK 1 (8/25 & 8/27): Introduction: Where Does Disease Come From? Why "Go Global" in Studying Its History?

Chronology and Terminology Quizzes open this week (online); both close at midnight on Wednesday, September 10

TOPICS:

- methods for studying disease in the past: paleopathology, genomics, ancient DNA, History
- a global framework and "deep time"

READINGS:

- *Monica H. Green, "The Value of Historical Perspective," in *The Ashgate Research Companion to the Globalization of Health*, ed. Ted Schrecker (Aldershot: Ashgate, 2012), pp. 17-37
- *Mark Spigelman, *et al.*, "The Promise, the Problems, and the Future of DNA Analysis in Paleopathology Studies," in Grauer, *Companion*, chapter 8, pp. 133-51
- Piers Mitchell, "Integrating Historical Sources with Paleopathology," in Grauer, *Companion*, chapter 17, pp. 310-23
- George C. Alter and Ann G. Carmichael, "Classifying the Dead: Toward a History of the Registration of Causes of Death," *Journal of the History of Medicine and Allied Sciences* 54 (1999), 114-32 SUPPLEMENTAL READINGS:
 - Pierre-Olivier Méthot and Bernardino Fantini, "Medicine and Ecology: Historical and Critical Perspectives of the Concept of 'Emerging Disease'," in A. La Vergata, G.-A. Menant, J. J. Boersema, eds., *Nature, Environment, and Quality of Life*, Archives Internationales d'Histoire des Sciences (Turnhout: Brepols Publishers, forthcoming)
 - Andrew D. Cliff, M. R. Smallman-Raynor, P. Haggett, D. F. Stroup and S. B. Thacker, *Emergence and Re-Emergence: Infectious Disease: A Geographical Analysis* (Oxford: Oxford University Press, 2009)
 - David Quammen, Spillover: Animal Infections and the Next Human Pandemic (New York: W. W. Norton, 2013)
 - Michael J. Dark, "Whole-Genome Sequencing in Bacteriology: State of the Art," *Infection and Drug Resistance*; 6 (2013): 115-23
 - E. Anastasiou and P. D. Mitchell, "Palaeopathology and Genes: Investigating the Genetics of Infectious Diseases in Excavated Human Skeletal Remains and Mummies from Past Populations," *Gene* 528 (2013): 33-40
 - B. Shapiro and M. Hofreiter, "A Paleogenomic Perspective on Evolution and Gene Function: New Insights from Ancient DNA," *Science* 343 no. 6169 (24 January 2014): 1236573
 - Masatoshi Nei and Sudhir Kumar, *Molecular Evolution and Phylogenetics* (Oxford: Oxford University Press, 2000)
 - Michel Tibayrenc, ed., Genetics and Evolution of Infectious Diseases (Amsterdam: Elsevier, 2011)
 - Aidan Cockburn, Eve Cockburn, Theodore Allen Reyman, ed., *Mummies, Disease & Ancient Cultures*, 2nd ed. (Cambridge: Cambridge University Press, 1998)
 - Tony Waldron, *Palaeoepidemiology: The Measure of Disease in the Human Past* (Walnut Creek, CA: Left Coast Press, 2007)
 - Terry Brown and Keri Brown, *Biomolecular Archaeology: An Introduction* (New York: John Wiley and Sons, 2011)
 - Kenneth F. Kiple, ed., *The Cambridge World History of Human Disease* (Cambridge: Cambridge University Press, 1993)

WEEK 2 (9/1 & 9/3): The Beginnings of Human Disease: Late Pleistocene Health **No class on Monday, September 1: LABOR DAY** TOPICS:

- overview of the three epidemiological transitions
- interrelation between subsistence, population size, and disease
- health and disease in the Late Pleistocene
- case studies: Upper Paleolithic Europe and Late Pleistocene Australia

READINGS:

- *Kristin N. Harper and George J. Armelagos, "The Changing Disease-scape in the Third Epidemiological Transition," *The International Journal of Environmental Research and Public Health* 7, no. 2 (February 2010): 675-697, doi: 10.3390/ijerph7020675
- Brigitte M. Holt and Vincenzo Formicola, "Hunters of the Ice Age: The Biology of Upper Paleolithic People," *Yearbook of Physical Anthropology* 51 (2008), 70-99
- Stephen Webb, "Upper Pleistocene Pathology of Sunda and Sahul: Some Possibilities," chapter 3 of *Palaeopathology of Aboriginal Australians: Health and Disease across a Hunter-Gatherer Continent* (Cambridge: Cambridge University Press, 1995), pp. 21-40

SUPPLEMENTAL READINGS:

- George Weisz and Jesse Olszynko-Gryn, "The Theory of Epidemiologic Transition: The Origins of a Citation Classic," *Journal of the History of Medicine and Allied Sciences* 65, no. 3 (2010), 287–326
- Jeffrey D. Wall and Montgomery Slatkin, "Paleopopulation Genetics," *Annual Review of Genetics* 46 (Dec 2012), 635-49
- T. Jonathan Davies and Amy B. Pedersen, "Phylogeny and Geography Predict Pathogen Community Similarity in Wild Primates and Humans," *Proceedings of the Royal Society. B: Biological Sciences* 275, no. 1643 (Jul. 22, 2008), 1695-1701
- Heather Pringle, "Welcome to Beringia," Science 28 February 2014: 961-63
- J. P. Bocquet-Appel and O. Bar-Yosef, eds., *The Neolithic Demographic Transition and Its Consequences* (Springer, Netherlands, 2008)

WEEK 3 (9/8 & 9/10): How Old is Tuberculosis? A Disease of Both Old World and New Chronology and Terminology Quizzes close at midnight, Wednesday, September 10 Timeline/Office Hours assignment this week; sign up for appt on Google Docs TOPICS:

- evolution of *Mycobacterium tuberculosis* Complex
- biology and paleopathology of tuberculosis
- case study: TB in pre-Columbian America

READINGS:

- *A. C. Aufderheide and C. Rodríguez-Martín, "Tuberculosis," in *The Cambridge Encyclopedia of Human Paleopathology* (Cambridge: Cambridge University Press, 1998), pp. 118-141
- *Sally Lehrman, "The Diabolical Genius of an Ancient Scourge," *Scientific American* 309, no. 1 (July 2013), 80-85, available at http://www.grochbiology.org/TBReturns.pdf
- B. T. Arriaza, W. Salo, A. C. Aufderheide, and T. A. Holcomb, "Pre-Columbian Tuberculosis in Northern Chile: Molecular and Skeletal Evidence," *American Journal of Physical Anthropology* 98, no. 1 (1995), 37-45
- Jane E. Buikstra, "Paleoepidemiology of Tuberculosis in the Americas," in G. Pálfi, O. Dutour, J. Deák, and I. Hutás (eds.), *Tuberculosis: Past and Present* (Szeged, Hungary: Golden Book and Tuberculosis Foundation, 1999), pp. 479-494

SUPPLEMENTAL READINGS:

I. Comas, Coscolla, M., Luo, T., Borrell, S., Holt, K. E., Kato-Maeda, M., Parkhill, J., et al., "Out-of-Africa Migration and Neolithic Coexpansion of *Mycobacterium tuberculosis* with Modern Humans," *Nature Genetics* 45 (2013), 1176–82

- Kristen I. Bos, *et al.* "Pre-Columbian mycobacterial genomes reveal seals as a source of New World human tuberculosis," *Nature*, Published online 20 August 2014, http://dx.doi.org/10.1038/nature13591 (2014)
- Ruth Hershberg, et al., "High Functional Diversity in Mycobacterium tuberculosis Driven by Genetic Drift and Human Demography," PLoS Biology 6 (2008), e311
- "Molecular Evolution, Epidemiology and Pathogenesis of *Mycobacterium tuberculosis* and Other Mycobacteria," special issue of *Infection, Genetics and Evolution* 12, no. 4 (June 2012)
- C. A. Roberts and J. E. Buikstra, *The Bioarchaeology of Tuberculosis: A Global View of a Reemerging Disease* (Gainesville: University Press of Florida, 2003)
- Anne C. Stone, Alicia K. Wilbur, Jane E. Buikstra, and Charlotte A. Roberts, "Tuberculosis and Leprosy in Perspective," *Yearbook of Physical Anthropology* 52 (2009), 66-94
- I. Hershkovitz, H. D. Donoghue, D. E. Minnikin, G. S. Besra, *et al.*, "Detection and Molecular Characterization of 9000-Year-Old *Mycobacterium tuberculosis* from a Neolithic Settlement in the Eastern Mediterranean," *PLoS ONE* 3 (2008): e3426
- H. D. Donoghue, O. Y.-C. Lee, D. E. Minnikin, G. S. Besra, J. H. Taylor, and M. Spigelman, "Tuberculosis in Dr. Granville's Mummy: A Molecular Re-examination of the earliest known Egyptian mummy to be scientifically examined and given a medical diagnosis," *Proceedings of the Royal Society B* 277 (2010), 51-56
- N. Tayles and H. R. Buckley, "Leprosy and Tuberculosis in Iron Age Southeast Asia?," *American Journal of Physical Anthropology* 125, no. 3 (2004), 239-56
- T. Suzuki, H. Fujita, and J. G. Choi, "New Evidence of Tuberculosis from Prehistoric Korea Population Movement and Early Evidence of Tuberculosis in Far East Asia," *American Journal of Physical Anthropology* 136, no. 3 (2008), 357-60

WEEK 4 (9/15 & 9/17): Malaria and the Beginnings of Agriculture all week, September 14-20: Phylogenetic Trees Quiz (online) TOPICS:

- biology and paleopathology of malaria
- sedentism, intensification of agriculture, deforestation, and the origins of malaria
- case studies: Neolithic Africa, ancient Rome, and the prehistoric Pacific Islands

READINGS:

- A. C. Aufderheide and C. Rodríguez-Martín, "Malaria," in *The Cambridge Encyclopedia of Human Paleopathology* (Cambridge: Cambridge University Press, 1998), pp. 228-238
- *James L. A. Webb Jr., "Malaria and the Peopling of Early Tropical Africa," *Journal of World History*, 16, No. 3 (Sep., 2005), pp. 269-91
- L. O'Sullivan, A. Jardine, A. Cook, and P. Weinstein, "Deforestation, Mosquitoes, and Ancient Rome: Lessons for Today," *Bioscience* 58, no. 8 (2008), 756-60
- Hallie R. Buckley, "The Predators Within': Investigating the Relationship between Malaria and Health in the Prehistoric Pacific Islands," in M. Oxenham and N. Tayles, eds., *Bioarchaeology of Southeast Asia* (Cambridge: Cambridge University Press, 2006), pp. 309-332

SUPPLEMENTAL READINGS:

- Weimin Liu, et al., "African Origin of the Malaria Parasite *Plasmodium vivax*," *Nature Communications* 5, 3346 (2014) doi:10.1038/ncomms4346.
- Weimin Liu *et al.*, "Origin of the Human Malaria Parasite *Plasmodium falciparum* in Gorillas," *Nature* 467 (23 September 2010), 420-425, doi:10.1038/nature09442
- Teddi J. Setzer, "Malaria Detection in the Field of Paleopathology: A Meta-Analysis of the State of the Art," *Acta Tropica* (2014), http://dx.doi.org/10.1016/j.actatropica.2014.08.010
- R. Sallares, "Role of Environmental Changes in the Spread of Malaria in Europe during the Holocene," *Quaternary International* 150 (2006), 21-27
- R. Sallares, *Malaria and Rome: A History of Malaria in Ancient Italy* (Oxford: Oxford University Press, 2002)

- S. Poolsuwan, "Malaria in Prehistoric Southeastern Asia," *Southeast Asian Journal of Tropical Medicine and Public Health* 26, no. 1 (1995), 3-22
- N. Tayles, "Anemia, Genetic Diseases, and Malaria in Prehistoric Mainland Southeast Asia," *American Journal of Physical Anthropology* 101, no. 1 (1996), 11-27

WEEK 5 (9/22 & 9/24): Leprosy: The Insidious Scourge TOPICS:

- biology and paleopathology, origins and spread of leprosy
- social meaning and consequences of the disease
- case study: leprosy in medieval Europe

READINGS:

- *Niels Lynnerup and Jesper Boldsen, "Leprosy (Hansen's Disease)," in Grauer, *Companion*, chap. 25, pp. 458-71
- *Martin C J Maiden, "Putting Leprosy on the Map," *Nature Genetics* 41, no. 12 (December 2009), 1264-66
- Aretaeus of Cappodocia (1st cent. CE) and Rufus of Ephesus (late 1st cent. CE), excerpts on leprosy; and Luke Demaitre, trans., medical certificates of leprosy examinations

SUPPLEMENTAL READINGS:

- Xiang-Yang Han and Francisco J. Silva, "On the Age of Leprosy," *PLoS Neglected Tropical Diseases* 8, no. 2 (2014), e2544.
- V. J. Schuenemann, et al. "Genome-wide Comparison of Medieval and Modern Mycobacterium leprae," Science 341 (12 July 2013), 179-83
- Simon Roffey and Katie Tucker, "A Contextual Study of the Medieval Hospital and Cemetery of St Mary Magdalen, Winchester, England," *International Journal of Palaeopathology* 2 (2012), 170-80
- Marc Monot, et al., "Comparative Genomic and Phylogeographic Analysis of Mycobacterium leprae," Nature Genetics 41 (2009), 1282–1289
- Charlotte A. Roberts, M. E. Lewis, and Keith Manchester, eds., *The Past and Present of Leprosy: Archaeological, Historical, Paleopathological, and Clinical Approaches*, BAR International Series 1054 (Oxford: Archaeopress, 2002)
- Jesper L. Boldsen and Lene Mollerup, "Outside St. Jørgen: Leprosy in the Medieval Danish City of Odense," *American Journal of Physical Anthropology* 130, no. 3 (2006), 344-51
- Luke E. Demaitre, *Leprosy in Premodern Medicine: A Malady of the Whole Body* (Baltimore: Johns Hopkins University Press, 2007)
- Carole Rawcliffe, Leprosy in Medieval England (Woodbridge: Boydell & Brewer, 2006)
- Angela Ki Che Leung. *Leprosy in China: A History*, Studies of the Weatherhead East Asian Institute, Columbia University (New York: Columbia University Press, 2009)

WEEK 6 (9/29 & 10/1): The Dangers of Urban Civilization: Smallpox and Plague TOPICS:

- biology of smallpox, and the impact of urbanization on human health
- case study: smallpox in Europe and the Middle East prior to the discovery of the New World
- biology of Yersinia pestis and its vectors; origins of plague in ancient Central Eurasia
- case study: the Justinianic Plague (the First Plague Pandemic)

READINGS:

- A. C. Aufderheide and C. Rodríguez-Martín, "Smallpox," in *The Cambridge Encyclopedia of Human Paleopathology* (Cambridge: Cambridge University Press, 1998), pp. 201-207
- *Rhazes, *A Treatise on the Smallpox and Measles*, trans. William Alexander Greenhill (London: Sydenham Society, 1848), 27-35
- Nils C. Stenseth, et al., "Plague: Past, Present, and Future," PLoS Medicine 5, no. 1 (2008): e3
- *Procopius on the plague in 542: http://www.fordham.edu/halsall/source/542procopius-plague.asp SUPPLEMENTAL READINGS:

- B. Cunha, "The Cause of the Plague of Athens: Plague, Typhoid, Typhus, Smallpox, or Measles?," *Infectious Disease Clinics of North America* 18, no. 1 (2004), 29-43
- Y. Li, et al.. "On the Origin of Smallpox: Correlating Variola Phylogenics with Historical Smallpox Records," *Proceedings of the National Academy of Sciences of the United States of America* 104, no. 40 (2007), 15787–92
- I. V. Babkin and I. N. Babkina, "A Retrospective Study of the Orthopoxvirus Molecular Evolution," *Infection, Genetics and Evolution* 12(8) (2012), 1597–1604.
- Y. Darton, I. Richard, and M.-C. Truc, "Osteomyelitis variolosa: A Probable Mediaeval Case Combined with Unilateral Sacroiliitis," International Journal of Paleopathology 3(4): 288–93
- K. L. Gage and M. Y. Kosoy, "Natural History of Plague: Perspectives from More than a Century of Research," *Annual Review of Entomology* 50 (2005), 505-28
- Giovanna Morelli, et al., "Yersinia pestis Genome Sequencing Identifies Patterns of Global Phylogenetic Diversity," Nature Genetics 42, no. 12 (December 2010), 1140-1145
- L. K. Little, ed., *Plague and the End of Antiquity: The Pandemic of 541-750* (Cambridge: Cambridge University Press, 2006)
- David M. Wagner, Jennifer Klunk, Michaela Harbeck, Alison Devault, et al., "Yersinia pestis and the Plague of Justinian 541–543 AD: A Genomic Analysis," The Lancet Infectious Diseases, 14 (2014), 319-26
- Stephen Mitchell, *A History of the Later Roman Empire*, *AD 284-641*, 2nd ed. (New York: Wiley-Blackwell, 2014), chap. 13

WEEK 7 (10/6 and 10/8): The 2nd Plague Pandemic (The Black Death)

WEDNESDAY, October 8: MIDTERM EXAM

TOPICS:

- the 13th-century polytomy and the origins of the Afro-Eurasian pandemic
- idea of quarantine and the beginnings of public health; why pandemics end
- case study: comparative impact of the Black Death in the Muslim and Christian worlds READINGS:
 - *Ewen Callaway, "The Black Death Decoded," *Nature* 478 (27 October 2011), 444-46 (this is a summary of the major study of Bos, *et al.* 2011)
 - *"The Black Death and the Jews 1348-1349 CE," available online @ http://www.fordham.edu/halsall/jewish/1348-jewsblackdeath.html
 - Michael Dols, "The Comparative Communal Responses to the Black Death in Muslim and Christian Societies," *Viator* 5 (1974), 269-287

SUPPLEMENTAL READINGS:

"East Smithfield Black Death Cemetery,"

 $\frac{http://www.museumoflondon.org.uk/English/Collections/OnlineResources/CHB/Database/Medieval+cemeteries/ESmithfieldBlackDeath.htm$

Lester K. Little, "Plague Historians in Lab Coats," Past and Present 213 (2011), 267-90

Kirsten I. Bos, et al., "A Draft Genome of Yersinia pestis from Victims of the Black Death," Nature 478 (27 October 2011), 506–10

Bruce Campbell, *The Great Transition: Climate, Disease and Society in the 13th and 14th Centuries*, The Ellen McArthur Lectures 2013, 4, 6, 11, and 13 February 2013,

http://www.econsoc.hist.cam.ac.uk/podcast-campbell.html, accessed 01/09/2014

- Yujun Cui, Chang Yu, Yanfeng Yan, Dongfang Li, et al., "Historical Variations in Mutation Rate in an Epidemic Pathogen, *Yersinia pestis*," *PNAS*, 110, no. 2 (2013): 577-82
- Monica H. Green, ed., *Pandemic Disease in the Medieval World: Rethinking the Black Death*, inaugural issue of *The Medieval Globe* 1, no. 1 (Fall 2014)
- Justin K. Stearns, *Infectious Ideas: Contagion in Premodern Islamic and Christian Thought in the Western Mediterranean* (Baltimore: Johns Hopkins University Press, 2011)

Sharon DeWitte, "Health in Post-Black Death London (1350-1538): Age Patterns of Periosteal New Bone Formation in a Post-epidemic Population," *American Journal of Physical Anthropology*, published online 17 April 2014, DOI: 10.1002/ajpa.22510

WEEK 8 (10/13 & 10/15): The Columbian Exchange: Smallpox (again) and Syphilis **Monday, October 13: no class today (Fall Break)** TOPICS:

- New World demography and pathocenosis before Contact
- biology and paleopathology of syphilis
- case studies: disease exchanges between Old World and New (smallpox and syphilis) READINGS:
 - *Della Collins Cook and Mary Lucas Powell, "Treponematosis: Past, Present, and Future," in Grauer, *Companion*, chap. 26, pp. 472-91
 - Ann F. Ramenofsky, Alicia K. Wilbur, and Anne C. Stone, "Native American Disease History: Past, Present, and Future Directions," *World Archaeology* 35, No. 2, *Archaeology of Epidemic and Infectious Disease* (October 2003), 241-57
 - R. McCaa, "Spanish and Nahuatl Views on Smallpox and Demographic Catastrophe in Mexico," *Journal of Interdisciplinary History* 25, no. 3 (1995), 397-431
- de Melo, F. L., J. C. M. de Mello, A. M. Fraga, K. Nunes, and S. Eggers, "Syphilis at the Crossroad of Phylogenetics and Paleopathology," *PLoS Neglected Tropical Diseases* 4, no. 1 (2010), 1-11 SUPPLEMENTAL READINGS:
 - Millie I. Darling and Helen D. Donoghue, "Insights from Paleomicrobiology into the Indigenous Peoples of Pre-colonial America: A Review," *Memórias do Instituto Oswaldo Cruz* 109, no. 2 (2014), 131-39
 - Christina Warinner, Nelly Robles García, Ronald Spores, and Noreen Tuross, "Disease, Demography, and Diet in Early Colonial New Spain: Investigation of a Sixteenth Century Mixtee Cemetery at Teposcolula Yucundaa," *Latin American Antiquity*, 23, no. 4 (2012): 467-89.
 - Kristin N. Harper, *et al.*, "The Origin and Antiquity of Syphilis Revisited: An Appraisal of Old World Pre-Columbian Evidence for Treponemal Infection," *Yearbook of Physical Anthropology* 54 (2011), 99-133
 - von Hunnius, T. E., D. Yang, B. Eng, J. S. Waye, and S. R. Saunders 2007 Digging deeper into the limits of ancient DNA research on syphilis. *Journal of Archaeological Science* 34:2091-2100
 - Verano, J. W. and D. H. Ubelaker (eds.) 1992 *Disease and Demography in the Americas*. Smithsonian Institution, Washington, D. C.
 - B. J. Baker and L. Kealhofer, eds., *Bioarchaeology of Native American Adaptation in the Spanish Borderlands* (Gainesville: University Press of Florida, 1996)
 - James C. Riley, "Smallpox and American Indians Revisited," *Journal of the History of Medicine and Allied Sciences* 65, no. 4 (Oct. 2010), 445-77
 - Noble David Cook, *Born to Die: Disease and New World Conquest, 1492-1650* (Cambridge: Cambridge University Press, 1998)
 - David S. Jones, *Rationalizing Epidemics: Meanings and Uses of American Indian Mortality since 1600* (Cambridge, MA: Harvard University Press, 2004)
 - Robert Boyd, *The Coming of the Spirit of Pestilence: Introduced Infectious Diseases and Population Decline among Northwest Coast Indians, 1774-1874* (Seattle: U. of Washington Press, 1999)
 - Elizabeth Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775-82* (NY: Hill and Wang, 2001) Laura McGough, *Gender, Sexuality, and Syphilis in Early Modern Venice: The Disease that Came to Stay*, Early Modern History: Society and Culture (New York: Palgrave Macmillan, 2010)
- WEEK 9 (10/20 & 10/22): The 16th-18th Centuries: Slavery, Colonialism, and the Worldwide Distribution of Disease

TOPICS:

- the establishment of European colonialism and the rise of the slave trade
- case study: malaria and yellow fever in the Atlantic world

READINGS:

- *Philip D. Curtin, "Epidemiology and the Slave Trade," *Political Science Quarterly* 83, no. 2 (June 1968), 190-216
- *J. R. McNeill, "Yellow Jack and Geopolitics: Environment, Epidemics, and the Struggles for Empire in the American Tropics, 1650-1825," *OAH Magazine of History*, April 2004, 9-13

SUPPLEMENTAL READINGS:

- Xiang-Yang Han, K. C. Sizer, J. S. Velarde-Félix, L. O. Frias-Castro, and F. Vargas-Ocampo, "The Leprosy Agents *Mycobacterium lepromatosis* and *Mycobacterium leprae* in Mexico," *International Journal of Dermatology* 51 (2012): 952–59
- Dauril Alden and Joseph C. Miller, "Out of Africa: The Slave Trade and the Transmission of Smallpox to Brazil, 1560-1831," *Journal of Interdisciplinary History* 18 (1987), 195-224
- J. H. Powell, *Bring Out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793* (Philadelphia: University of Pennsylvania Press, 1949)

WEEK 10 (10/27 & 10/29): The 18th-19th Centuries: Colonialism, Industrialization, and Cholera **Tuesday, October 28 (midnight):** *Ghost Map* assignment due TOPICS:

- the first global health network: smallpox inoculation/vaccination projects
- industrialization and urban growth in the context of European expansion
- the cholera pandemics of the 19th century
- case studies: globalizing Jenner; John Snow's epidemiology

READINGS:

- David Arnold, "The Indian Ocean as a Disease Zone, 1500-1950," *South Asia: Journal of South Asian Studies* 14, No. 2 (1991), 1-21
- *Andrea Rusnock, "Catching Cowpox: The Early Spread of Smallpox Vaccination, 1798–1810," Bulletin of the History of Medicine 83, no. 1 (Spring 2009), 17-36
- *Gillen D'Arcy Wood, "Blue Death in Bengal," chap. 4 of *Tambora: The Eruption That Changed the World* (Princeton: Princeton University Press, 2014), pp. 72-97
- Steven Johnson, *The Ghost Map: The Story of London's Most Terrifying Epidemic and How It Changed Science, Cities, and the Modern World* (New York: Riverhead Books, 2006) SUPPLEMENTAL READINGS:
 - Alison M. Devault, *et al.*, "Second-Pandemic Strain of *Vibrio cholerae* from the Philadelphia Cholera Outbreak of 1849," *The New England Journal of Medicine* 370 (2014), 334-40
 - M. E. Lewis, "Impact of Industrialization: Comparative Study of Child Health in Four Sites from Medieval and Postmedieval England (AD 850-1859)," *American Journal of Physical Anthropology* 119, no. 3 (2002), 211-23
 - Joseph N. Tien, et al., "Herald Waves of Cholera in Nineteenth Century London," *Journal of the Royal Society: Interface* (2011) 8, 756–60
 - Richard J. Evans, "Epidemics and Revolutions: Cholera in Nineteenth-Century Europe," *Past and Present*, No. 120 (August 1988), 123-146
 - Christopher Hamlin, Cholera: The Biography (Oxford: Oxford University Press, 2009)
 - Peter Vinten-Johansen, et al., Cholera, Chloroform and the Science of Medicine: A Life of John Snow (Oxford: Oxford University Press, 2003)
 - Frank Snowden, *Naples in the Time of Cholera 1884-1911*, rev. ed. (Cambridge: Cambridge University Press, 2002)
 - Myron Echenberg, *Africa in the Time of Cholera: A History of Pandemics from 1817 to the Present*, African Studies, 114 (Cambridge: Cambridge University Press, 2011)
 - Philip D. Curtin, *Death by Migration: Europe's Encounter with the Tropical World in the Nineteenth Century* (Cambridge: Cambridge University Press, 1989)

- Philip D. Curtin, *Disease and Empire: The Health of European Troops in the Conquest of Africa* (Cambridge: Cambridge University Press, 1998)
- David Arnold, ed., Warm Climates and Western Medicine: The Emergence of Tropical Medicine, 1500-1900 (Amsterdam: Rodopi, 1996)
- WEEK 11 (11/3 & 11/5): From the Global to the Microscopic: International Commerce and Laboratory Science

TOPICS:

- Pasteur, Koch, and the success of germ theory
- case studies: Third Plague Pandemic, 1894-1930; 1918 Flu Pandemic

READINGS:

- *Myron Echenberg, "Pestis Redux: The Initial Years of the Third Bubonic Plague Pandemic, 1894-1901," *Journal of World History* 13, No. 2 (Fall 2002), 429-449
- *Jeffery K. Taubenberger, Johan V. Hultin, and David M. Morens, "Discovery and Characterization of the 1918 Pandemic Influenza Virus in Historical Context," *Spotlight on Respiratory Viruses*, eds. Frederick Hayden and Menno D. de Jong, a special issue of *Antiviral Therapy* 12 (2007), 581-591

SUPPLEMENTAL READINGS:

- Irvine Loudon, *The Tragedy of Childbed Fever* (New York: Oxford University Press, 2000)
- Carol Benedict, *Bubonic Plague in Nineteenth-Century China* (Stanford: Stanford University Press, 1996)
- Myron Echenberg, *Plague Ports: The Global Urban Impact of Bubonic Plague, 1894-1901* (New York: New York University Press, 2007)
- James C. Mohr, *Plague and Fire: Battling Black Death and the 1900 Burning of Honolulu's Chinatown* (New York: Oxford University Press, 2005)
- Lien-teh Wu, *Plague Fighter: The Autobiography of a Modern Chinese Physician* (Cambridge: W. Heffer & Sons Ltd., 1959) a participant's account of the 1910-1911 Manchurian plague epidemic
- John M. Barry, *The Great Influenza: The Epic Story of the Deadliest Plague in History*, rev. ed. (New York: Viking, 2005)
- Carol R. Byerly, Fever of War: The Influenza Epidemic in the U.S. Army during World War I (New York: New York University Press, 2005)
- Geoffrey W. Rice, with assistance from Linda Bryder, *Black November: The 1918 Influenza Pandemic in New Zealand* (Christchurch: Canterbury University Press, 2005)

WEEK 12 (11/10 & 1112): TB, Leprosy, and the Rise of Modern Public Health TOPICS:

- public health campaigns and the "Gospel of Germs"
- why were the effects of the 2nd Epidemiological Transition so unequal?
- case studies: diphtheria in New York; TB in the U.S. and South Africa; the global leprosy "pandemic" READINGS:
 - *L. C. Allen, "The Negro Health Problem," *American Journal of Public Health* 5, No. 3 (March 1915), 195-203
 - Randall Packard, "Preindustrial South Africa: A Virgin Soil for Tuberculosis?," Chapter 1 of White Plague, Black Labor: Tuberculosis and the Political Economy of Health and Disease in South Africa (Berkeley: University of California Press, 1989), 22-32
- *Gavin Milroy, "Is Leprosy Contagious?," *Medical Times and Gazette* June 19, 1875, pp. 658-59 SUPPLEMENTAL READINGS:
 - Charlotte A. Roberts and Jane E. Buikstra, *The Bioarchaeology of Tuberculosis: A Global View on a Reemerging Disease* (Gainesville: University Press of Florida, 2003)
 - Helen Bynum, Spitting Blood: The History of Tuberculosis (Oxford: Oxford University Press, 2012)
 - Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge: Harvard University Press, 1998)

- Evelynn Maxine Hammonds, *Childhood's Deadly Scourge: The Campaign to Control Diphtheria in New York City, 1880-1930* (Baltimore: Johns Hopkins University Press, 1999)
- Jim Downs, Sick from Freedom: African-American Illness and Suffering during the Civil War and Reconstruction (New York: Oxford University Press, 2012)
- Samuel Kelton Roberts, Jr., *Infectious Fear: Politics, Disease, and the Health Effects of Segregation* (Chapel Hill, NC: University of North Carolina Press, 2009)
- Z. Gussow and G. S. Tracy, "Stigma and the Leprosy Phenomenon: The Social History of a Disease in the Nineteenth and Twentieth Centuries," *Bulletin of the History of Medicine* 44, no. 5 (1970), 425-449
- Angela Ki Che Leung, *Leprosy in China: A History* (New York: Columbia University Press, 2009) John W. Ward and Christian Warren, eds., *Silent Victories: The History and Practice of Public Health in Twentieth-Century America* (New York: Oxford University Press, 2007)

WEEK 13 (11/17 & 11/19): Diseases of the Tropics: From Defense to Control to Eradication TOPICS:

- "tropical medicine" as a concept and a practice
- discovering the etiology of insect-borne diseases
- the Rockefeller Foundation and the World Health Organization (WHO)
- case studies: the failure of eradication campaigns in Latin America vs. the success of the worldwide smallpox campaign
- SUMMARY: assessment of the 2nd Epidemiological Transition in global perspective READINGS:
 - *W. C. Gorgas, "The Conquest of the Tropics for the White Race," *Journal of the American Medical Association* 52, no. 25 (1909), 1967–69
 - *Marcos Cueto, "The Cycles of Eradication: The Rockefeller Foundation and Latin American Public Health, 1918-1940," in *International Health Organizations and Movements, 1918-1939*, ed. Paul Weindling (Cambridge: Cambridge University Press, 1995), 222-43
 - P. J. Brown, "Culture and the Global Resurgence of Malaria," in *The Anthropology of Infectious Disease: International Health Perspectives*, ed. M. C. Inhorn and P. J. Brown (London: Routledge, 1997), pp. 119-141
 - Donald A Henderson, "Eradication: Lessons from the Past," *Morbidity and Mortality Weekly Report* December 31, 1999 / 48(SU01), 16-22, available online @ http://www.cdc.gov/mmwr/preview/mmwrhtml/su48a6.htm

SUPPLEMENTAL READINGS:

- James L. A. Webb, Jr., *Humanity's Burden: A Global History of Malaria* (Cambridge: Cambridge University Press, 2009)
- Frank M. Snowden, *The Conquest of Malaria: Italy, 1900-1962* (New Haven, CT: Yale University Press, 2005)
- Diego Armus, ed., *Disease in the History of Modern Latin America: From Malaria to AIDS* (Durham, NC: Duke University Press, 2003)
- John R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1640-1914* (Cambridge & New York: Cambridge University Press, 2010)
- Douglas Haynes, *Imperial Medicine: Patrick Manson and the Conquest of Tropical Disease* (Philadelphia: University of Pennsylvania Press, 2001)
- Anne-Emanuelle Birn and Gilberto Hochman, eds., special issue of *Canadian Bulletin of Medical History* 25, No.1 (2008) on History of Latin American International Health
- Steven Palmer, Launching Global Health: The Caribbean Odyssey of the Rockefeller Foundation (Ann Arbor: University of Michigan Press, 2010)
- Anne Hardy and Lise Wilkinson, *Prevention and Cure: The London School of Hygiene & Tropical Medicine, A 20th Century Quest for Global Public Health* (London: London School of Hygiene & Tropical Medicine, 2001)

- James L.A. Webb Jr., *The Long Struggle Against Malaria in Tropical Africa* [electronic resource] (New York, NY: Cambridge University Press, 2014)
- Frank Fenner, et al., Smallpox and Its Eradication (Geneva: World Health Organization, 1988), available online @ http://whqlibdoc.who.int/smallpox/9241561106.pdf
- Donald A. Henderson, *Smallpox: The Death of a Disease. The Inside Story of Eradicating a Worldwide Killer*, foreword by Richard Preston (Amherst, NY: Prometheus Books, 2009)
- Sanjoy Bhattacharya, *Expunging Variola: The Control and Eradication of Smallpox in India 1947-1977* (London: Sangam, 2006)

WEEK 14 (11/24 & 11/26): HIV/AIDS, Part I: The Beginning of a New Pandemic TOPICS:

- biomedicine conquers disease: the case of syphilis
- the 3rd Epidemiological Transition: the end of the "golden age" of biomedicine
- the "4-H Club": early epidemiology, science, and social reactions to HIV/AIDS in the U.S.
- the fifth "H": HIV and women, or how a "gay disease" became global

READINGS:

- Allan M. Brandt and Martha Gardner, "The Golden Age of Medicine?," in *Medicine in the Twentieth Century*, eds. Roger Cooter and John Pickstone (Amsterdam: Harwood, 2000), 21-37
- *First U.S. case report of "AIDS," available online @ http://www.cdc.gov/mmwr/Preview/mmwrhtml/june 5.htm
- *Robert Gallo and Luc Montagnier, "The Chronology of AIDS Research," *Nature* 326 (2 April 1987), 435-36
- HBO movie, And the Band Played On (2001) available from library
- *Mary Fisher, "1992 Republican National Convention Address," delivered 19 August 1992 SUPPLEMENTAL READINGS:
 - Allan M. Brandt, No Magic Bullet: A Social History of Venereal Disease in the United States since 1880 (New York: Oxford University Press, 1985)
 - Susan M. Reverby, ed., *Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study* (Chapel Hill: University of North Carolina Press, 2000); and *Examining Tuskegee: The Infamous Syphilis Study and its Legacy* (Chapel Hill: University of North Carolina Press, 2009) and http://www.examiningtuskegee.com
 - Randy Shilts, *And the Band Played on: Politics, People, and the AIDS Epidemic* (New York: St. Martin's Press, 1987)
 - Mirko Grmek, *History of AIDS: Emergence and Origin of a Modern Pandemic*, trans. Russell C. Maulitz and Jaclyn Duffin (Princeton: Princeton University Press, 1990); this was first published in French in 1989 and remains a valuable witness to how the pandemic was seen in its early years by a historian-clinician
 - Stephen Pemberton, *The Bleeding Disease: Hemophilia and the Unintended Consequences of Medical Progress* (Johns Hopkins University Press, 2011)
 - Paul Farmer, AIDS and Accusation: Haiti and the Geography of Blame (Berkeley: University of California Press, 1992)
 - Steven Epstein, *Impure Science: AIDS, Activism, and the Politics of Knowledge* (Berkeley: University of California Press, 1996)
 - Ronald Bayer and Gerald M. Oppenheimer, *AIDS Doctors: Voices from the Epidemic* (New York: Oxford University Press, 2000)
 - Paul Farmer, Margaret Connors, and Janie Simmons, eds., Women, Poverty, and AIDS: Sex, Drugs, and Structural Violence (Monroe, ME: Common Courage Press, 1996)

WEEK 15 (12/1 & 12/3): HIV/AIDS, Part II: The Global Pandemic; A Global World of Disease **Tuesday, December 2 (midnight):** *Origin of AIDS* assignment due TOPICS:

- case study: the HIV/AIDS pandemic in sub-Saharan Africa
- The 3rd Epidemiological Transition: emerging diseases (Ebola, SARS, avian flu, MERS, . . .), reemerging diseases, drug resistance, and global philanthropy

READINGS:

- *Kiran van Rijn, "The Politics of Uncertainty: The AIDS Debate, Thabo Mbeki, and the South African Government Response," *Social History of Medicine* 19, no. 3 (2006), 521-38
- *Frank M. Snowden, "Emerging and Reemerging Diseases: A Historical Perspective," *Immunological Reviews* 225 (2008), 9–26
- *David McCoy, Gayatri Kembhavi, Jinesh Patel, and Akish Luintel, "The Bill & Melinda Gates Foundation's Grant-Making Programme for Global Health," *The Lancet* 373 (2009), 1645-1653 SUPPLEMENTAL READINGS:
 - Peter Piot, *No Time to Lose: A Life in Pursuit of Deadly Viruses* (New York: W. W. Norton, 2013) Paul M. Sharp & Beatrice H. Hahn, "AIDS: Prehistory of HIV-1," *Nature* 455 no. 7213 (October 2008), 605-6; this is the "interpretive" essay that goes along with the main research study: Michael Worobey, *et al.*, "Direct Evidence of Extensive Diversity of HIV-1 in Kinshasa by 1960," *Nature* 455 (2 October 2008), 661-664
 - Philippe Denis and Charles Becker, *The HIV/AIDS Epidemic in Sub-Saharan Africa in a Historical Perspective*, posted on website of the Senegalese Network on "Law, Ethics, Health" @ http://www.refer.sn/rds/article.php3?id article=245
 - Carolyn Baylies and Janet Bujra, eds., *AIDS, Sexuality, and Gender in Africa: The Struggle Continues* (New York: Routledge, 2001)
 - Gerald M. Oppenheimer and Ronald Bayer, *Shattered Dreams: An Oral History of the South African AIDS Epidemic* (New York: Oxford University Press, 2007)
 - Didier Fassin, When Bodies Remember: Experiences and Politics of AIDS in South Africa (Berkeley: University of California Press, 2007)
 - Shawn Smallman, *The Aids Pandemic in Latin America* (Chapel Hill: University of North Carolina Press, 2007)
 - Kate E. Jones, Nikkita G. Patel[,] Marc A. Levy, Adam Storeygard, Deborah Balk, John L. Gittleman, and Peter Daszak, "Global Trends in Emerging Infectious Diseases," *Nature* **451** (21 February 2008), 990-993
 - Thomas Butler, "Plague Gives Surprises in the First Decade of the 21st Century in the United States and Worldwide," *American Journal of Tropical Medicine and Hygiene* 89 (2013), 788-93; Published online September 16, 2013
 - Tamara Giles-Vernick and James L. A. Webb, Jr., eds., *Global Health in Africa: Historical Perspectives on Disease Control* (Athens, OH: University of Ohio Press, 2013)
 - Paul Farmer, *Partner to the Poor: A Paul Farmer Reader*, ed. Haun Saussy, foreword Tracy Kidder (Berkeley: University of California Press, 2010)
 - Tracy Kidder, Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, A Man Who Would Cure the World (New York: Random House, 2003)
 - Tom Koch, *Disease Maps: Epidemics on the Ground* (Chicago: University of Chicago Press, 2011) Jacalyn Duffin and Arthur Sweetman, *SARS in Context: Memory, History, and Policy* (Montreal: McGill-Queen's University Press, 2006)
 - Anthony Costello, et al., "Managing the Health Effects of Climate Change," *The Lancet* 373 (2009): 1693–733
 - Sonia Altizer et al., "Climate Change and Infectious Diseases: From Evidence to a Predictive Framework," *Science* 341 (2013), 514-19

Friday, December 5 (optional): Review Session

Wednesday, December 10, 7:30 - 9:20 AM: FINAL EXAM