Global Disease Eradication: History and the Present

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University of Oregon—Winter 2012

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Course Description

This course focuses on disease eradication attempts during the past century. Three case studies will analyze the eradication attempts surrounding smallpox, polio, and malaria. Smallpox is the only human disease to have been successfully eradicated during a campaign from 1967-77 organized by the World Health Organization. Polio is near-eradication, but has encountered significant barriers as—most notably—people in parts of northern Nigeria have refused to be vaccinated. Malaria has been the target of eradication for over a half century, with elimination occurring in the southern United States and Europe, but with no progress in Africa. The case studies take an international perspective due to the involvement of agencies such as the Rockefeller Foundation, the League of Nations, and the World Health Organization and the global requirements of any eradication attempt; however, emphasis will be on the developing world and especially sub-Saharan African. Course readings are interdisciplinary and include writings by medical doctors, anthropologists, historians, and epidemiologists, as well as primary source documents.

For each disease case study, we will study the science of the disease, the role of the environment, the characteristics making it a viable target for eradication, barriers to eradication, the historical development of vaccines or other tools, the logistics of mobilizing international agencies, and the ethical questions related to non-compliance. Students will also develop a better understanding of how public health strategies can be in tension with individual liberties, the role of the state in coordinating eradication attempts, and the ethics of forced vaccination in light of current discussions of human rights. We will also become familiar with ongoing attempts directed at lymphatic filariasis (elephantiasis), guinea worm, and the recent successful eradication of the animal disease rinderpest. Through readings and in-class discussion, students will be asked to think about eradication not just from the perspective of public health professionals, but also to consider the concerns, perspectives and fears of those who oppose eradication campaigns.

Required Texts (to be purchased)

Nancy Leys Stepan, Eradication: Ridding the World of Diseases Forever? Cornell University Press: Ithaca, NY. 2011.
Elisha P. Renne, The Politics of Polio in Northern Nigeria. Indiana University Press: Indianapolis. 2010.

Available on Blackboard, to be printed and brought to the relevant class

- Perez Yekutiel, "Lessons from Big Eradication Campaigns" *World Health Forum* 1981.
- Malcom Gladwell, "The Mosquito Killer" New Yorker 2001.
- Tina Rosenberg, "What the World Needs Now is DDT" New York Times April 11, 2004.
- "Global Health Initiative. Private Sector Intervention Case Example." World Economic Forum. 2002.
- Randall Packard, The Making of a Tropical Disease: A Short History of Malaria. Johns Hopkins University Press: Baltimore. 2007. Intro, 3, 5, 6, 8, Conclusion

- Paul Greenough, "Intimidation, Coercion and Resistance in the Final Stages of the South Asian Smallpox Eradication Campaign, 1973-1975," Social Science and Medicine (1995): 633-645.
- Alex McKay, "The Eradication of Smallpox from Bangladesh: Some Personal Reflections." http://www.smallpoxhistory.ucl.ac.uk/Bangladesh/BangProfiles.htm. Accessed 12/2011.
- Leonard Berlin, "Tuberculosis: Resurgent Disease, Renewed Liability." American Journal of Roentgenology. (2008): 1438-1444.
- Maryam Yahya, "Polio Vaccines - 'No Thank You!' Barriers to Polio Eradication in Northern Nigeria." African Affairs (2007): 185-204.
- G.A. Poland and R.M. Jacobson, "Understanding Those Who Do Not Understand: A Brief Review of the Anti-Vaccine Movement." Vaccine (2001): 2440-45.
- Melissa Leach and James Fairhead, Vaccine Anxieties: Global Science, Child Health and Society. London: Earthscan/ James & James, 2007. Chapters 2, 3, 5
- Eastern and Southern Regional Office, United National Children's Fund. "Combatting Antivaccination Rumours: Lessons Learned From Case Studies in East Africa."
- John Gyapong and Nana Twum-Danso, "Editorial: Global Elimination of Lymphatic Filariasis: Fact Or Fantasy?" Tropical Medicine & International Health 11 (2006): 125-28.
- "The Global Elimination of Lymphatic Filariasis: The Story of Zanzibar." Geneva: World Health Organization, 2002.

Available on Blackboard, to be reviewed, but not required to be printed

- WHO Polio fact sheet
- WHO smallpox fact sheet
- WHO Malaria in Africa fact sheet
- WHO "Health in Africa" fact sheet
- Manson's *Tropical Diseases* – Malaria
- Manson's *Tropical Diseases* – Lymphatic Filariasis
- Manson's *Tropical Diseases* – Hookworm
- Manson's *Tropical Diseases* – Yellow Fever
- Gates Foundation Malaria Eradication webpage
- Carter Center Guinea Worm webpage

Assignments and Grades

Students will be assessed based on four criteria: class participation, a midterm, an essay, and a final exam. Class participation will be a combination of attendance and preparedness and will be based on a student being present and on time, with readings completed, notes taken, and ready to discuss materials. Merely being present assures you an attendance grade of "C-." The exams will include a map portion, and short answers based on readings and class lectures. There will be a student-generated study guide for each examination, and students will be allowed to use one page of notes. The essay will be 6-7 pages long, and is due in hard copy at the beginning of class; I do not accept emailed papers. Late work will lose 10% for each day it is late.

Class Participation	15%
Mid-Term Exam	25%
Essay	30%
Final Exam	30%

Attendance
To each class, you should bring whatever texts we are reading in addition to your notes on that text. You are allowed two absences without penalty. Each additional absence will result in a deduction of a third of letter grade from your final grade. More than five absences will result in a failing grade.

Technology
I do not permit the use of laptop computers or other electronic devices (i.e., recording equipment) in the classroom without specific permission from me. Please silence your cell phone or turn it off before you come in. If you need to be reachable during class, or you are physically unable to write and must take notes by laptop, come and see me.

Plagiarism
Although you will spend time reading and commenting upon each other's work in class, your written words should be *your own*. If you are uncertain about how to avoid plagiarism, please read the information available on the library website: http://libweb.uoregon.edu/guides/plagiarism/students/. We will discuss plagiarism in class, but a general rule is: when in doubt, cite it. I will be report all cases of plagiarism to the Dean's Office.

Writing Assistance
This is an upper-division course that is writing intensive. I expect all assignments to be well written, carefully edited, and grammatically correct. If you have writing questions, you can always make an appointment to discuss a draft with me. There is one-on-one assistance available at the Writing Lab (68 Prince Lucien Campbell) and you can schedule a tutorial session by calling 541-346-3226.

Disability
If you require accommodations for a disability, please let me know as soon as possible. Disability Services is available to assist you, and you can find more information at: http://ds.uoregon.edu/. They can be contacted at disabsrv@uoregon.edu or 541-346-1155.

[1] Tuesday, January 10

[2] Thursday, January 12
Stepan, Eradication, chs. 0, 1
Yekutiel, "Lessons from Big Eradication Campaigns"

[3] Tuesday, January 17
Stepan, Eradication, ch. 2
Gladwell, "The Mosquito Killer"

[4] Thursday, January 19
Stepan, Eradication, ch. 3
Soper Diaries, Set A

[5] Tuesday, January 24
Stepan, Eradication, ch. 4
Rosenberg, "What the World Needs Now is DDT"
Soper Diaries, Set B

[6] Thursday, January 26
Stepan, Eradication, ch. 5

"Global Health Initiative" malaria case study
[7] Tuesday, January 31
Packard, Making of a Tropical Disease, chs. Intro, 3, 5

[8] Thursday, February 2
Packard, Making of a Tropical Disease, chs. 6, 8, Conclusion

[9] Tuesday, February 7
Midterm

[10] Thursday, February 9
Stepan, Eradication, ch. 6

[11] Tuesday, February 14
Greenough, "Intimidation, Coercion and Resistance"
McKay Smallpox
Berlin, "Tuberculosis"

[12] Thursday, February 16
Renne, The Politics of Polio, chs. 1-3

[13] Tuesday, February 21
Renne, The Politics of Polio, chs. 4-5
Yahya, "Polio Vaccines—'No Thank You!'"

[14] Thursday, February 23
Renne, The Politics of Polio, chs. 6, 7, epilogue
Poland and Jacobson, "Understanding Those Who Do Not Understand"
Paper Outline Due

[15] Tuesday, February 28
Paper Due

[16] Thursday, March 1
Fairhead and Leach, Vaccine Anxieties, ch. 2
UNICEF "Combatting Antivaccination Rumours"

[17] Tuesday, March 6
Fairhead and Leach, Vaccine Anxieties, chs. 3,5

[18] Thursday, March 8
Stepan, Eradication, ch. 7
Review either the Gates Foundation malaria page or the Carter Center's guinea worm page

[19] Tuesday, March 13
Gyapong and Twum-Danso, "Editorial: Global Elimination of Lymphatic Filariasis"
WHO, "The Global Elimination of Lymphatic Filariasis: The Story of Zanzibar"

[20] Thursday, March 15

****FINAL: Tuesday, March 20, 1 pm****