

HC 101H: Malaria—Science, Ethics, History, Technology
Professor Melissa Graboyes, MPH, Ph.D.
Clark Honors College, University of Oregon

Professor Graboyes
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CHC Student Leader: Mikala Capage
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Meeting Times & Space

Tuesdays & Thursdays 10.15-11.35

Zoom meeting id: <https://uoregon.zoom.us/j/94167817124>

Meeting ID: 941 6781 7124

No password

Office Hours

Professor Graboyes: Tuesdays and Thursdays 12-2.

All appointments must be scheduled via <https://graboyes-officehours.youcanbook.me/> and will be held on zoom. There is a waiting room so appointments remain private, but no passcode to enter the zoom space. There will be “drop in” office hours and time for students to ask questions at the end of every class session.

Mikala Capage: Wednesdays, 11-12.15. Students may drop in to zoom space <https://uoregon.zoom.us/j/98099979458> during this time, or may set up alternate times by emailing Mikala. There is a waiting room so appointments remain private, but no passcode to enter the zoom space.

Technical Requirements

All class content will be available via Canvas and all class sessions will be held on zoom.

Example: Log into canvas.uoregon.edu using your DuckID to access our class. If you have questions about accessing and using Canvas, visit the [Canvas support page](#). Canvas and Technology Support also is available by phone or live chat: [541-346-4357](tel:541-346-4357) | livehelp.uoregon.edu

If you face Internet access challenges: companies are offering free access during this challenging time. To learn more about options visit Information Services’ [web page on going remote](#).

Course Description

This course examines the vector-borne disease, malaria, from an inter-disciplinary liberal arts perspective. We will consider malaria and its corresponding technologies in Africa from many different disciplines and perspectives, recognizing how these different approaches contribute to more complex and accurate understanding of a challenging disease. We will make sure not to narrowly think about malaria as only a “scientific” or “medical” issue, but as a topic with history, multiple forms of knowledge, and with many remaining unanswered questions. Students will learn about the production of new historical knowledge through exposure to the faculty member’s own research-in-progress writings, in addition to having contact with a CHC upperclassman who has experience conducting malaria research. Through exploring the topics of malaria and technology on the African continent, students will develop a greater awareness of how diverse perspectives are incorporated into a liberal arts education.

The class is divided into three sections. We will begin by building a basic, but solid, understanding of malaria as a disease: how it is transmitted, how it is rooted in the larger environment, who it affects and where, and forms of acquired and genetic immunity. We will learn about the history of malaria, and the history of malaria *interventions* (attempts to control, eliminate, or eradicate the disease) over the past hundred years. We will also learn more about contemporary malaria control interventions and debates about whether malaria eradication should be attempted again today. In all of these areas, our primary focus will be on the African continent, the site of the greatest malaria burden historically and in the present.

During the second part of the course, we think more carefully about the role of technology. We will hear from a visiting expert about new technologies that include a malaria vaccine, genetically modified (GM) mosquitos, gene drives, and the use of CRISPR. We will also consider the history of “new” technologies in relation to malaria, including the use of the chemical DDT post-World War II and the rhetoric that often accompanies the use of those technologies, and the new use of “old” technologies like bed nets and environmental modifications. We will read about, and then discuss together, what is meant by “appropriate technology”—parsing when the term arose, what counts as “appropriate,” who defines it as such, and how the concept has become firmly linked with the Global South.

In the final part of the course, we will consider some of the ethical questions raised by malaria interventions, particularly the thorny issues of rebound, or resurgent, malaria epidemics. These epidemics occur when malaria infections have been successfully reduced for a number of years, resulting in the loss of individuals’ acquired immunity. If malaria is allowed to return (because an intervention ends and appropriate preparations are not made), it can return in a more dangerous and deadly form, “rebounding” with higher levels of morbidity and mortality than existed previously. This is a real-life issue that continues to plague contemporary malaria interventions, and the class will discuss how to end interventions ethically, delineating the responsibilities of foreign organizations, the appropriate level of involvement for community members, and whether the history of colonization and past interventions ought to factor into contemporary practices.

This course has a number of innovations: it will provide students with exposure to primary source materials gathered by Dr. Graboyes in her research; contact with malaria experts globally who will deliver guest lectures discussing malaria from a variety of disciplinary perspectives; peer mentoring from a CHC upperclassman who is involved in her own malaria research; and experience reading and analyzing articles from the fields of epidemiology, parasitology, anthropology, history, global health, African Studies, and Science and Technology Studies (STS). We will also be requiring students to have a scheduled 10-minute meeting with Dr. Graboyes and a 15-minute meeting with Mikala during the course of the term as a way of helping to address the transition to college, and the challenges of our current remote format.

During the quarter, we will learn a lot about disease, but the goal is not to learn about malaria *per se*, but to foster skills of critical thinking and reading skills. This class requires high level participation and great commitment on the part of students. Students are expected to have read carefully and thought critically about the texts prior to the beginning of class.

Learning Outcomes

- Develop ability to read and question critically, think logically, and reason effectively
- Identify the major assertions and assumptions of an academic argument and evaluate its supporting evidence
- Practice active participation and oral communication of ideas in a group setting
- Describe how a liberal arts perspective on the themes of “malaria” and “technology” are multi-disciplinary and different from taking a purely “scientific” approach
- Describe the underlying premises in your own and others’ arguments or perspectives
- Identify a range of disciplinary approaches used to reconstruct the history of malaria and characterize the diverse perspectives they offer
- Recognize and employ the conventions of academic writing, presentation, and discussion
- Explore primary sources related to the history of medicine and malaria, which may include: government reports, medical texts, letters and diaries, maps, epidemiological data, and oral sources
- Identify examples of African indigenous knowledge and practices
- Identify and explain chronologically important events in the history of malaria

Required Readings & Supplies

All course readings are available to download from Canvas under the “Course Readings” module. They are labeled by the author’s last name *and* by the class session we will be discussing them.

All readings must be printed out. This is not because I hate trees, but because it will aid in your learning and the success of our whole class. **NOTE: If you do not have access to a printer or cannot print out these articles, please let me know ASAP and I will arrange to print and mail you the full set of articles.** Printed articles allow you to take notes on paper away from the computer screen. This will aid overall comprehension, give you time away from a screen, and facilitate writing activities in your notebook. Being able to easily reference the article and your notes during our online sessions without having to switch screens will also make our class discussions smoother. I recommend printing all of the articles at the start of the term, hole punching them, and putting them in a binder for easy reference throughout the term. Please do not make additional copies or distribute these materials to anyone not enrolled in this class.

You will also need to have a new, lined, notebook of standard 8.5x11 inch size, dedicated to this class. You’ll also need a pencil or pen to take handwritten notes in your notebook. If locating this type of notebook is a hardship, please let me know ASAP and I will arrange to mail you one.

Class Attendance & Participation

This course hinges on your participation and engagement with the subject matter. We are a supportive and engaged community working out of respect and genuine interest in helping each other improve on our respective educational paths. Attendance is required for all students, which means being logged onto Zoom at the start of our sessions and for the duration of our class. The expectation is that the camera will normally be turned on.

The particular format and pace for our class does not lend itself easily to makeup work, and so I hope that you will be present for each of our meetings. But I understand that life sometimes

involves unplanned reasons for absence (for example health reasons), and I will do my best to work with you to make sure that there is a way you can complete each of the assignments.

It's my intention to have nearly every session involve both larger group and small group work. To that end, I will have groups in stable breakout groups for at least the first half of the term. Group assignments are listed below, and you will be automatically placed in these breakout groups during class sessions on zoom.

- Group 1: Betcone, Byron, Carstairs, Clark
- Group 2: Deering, Fisher, Frainey, Froehlich
- Group 3: Herbers, Lawrence, Lefevre, Mcdonald
- Group 4: Morley, Munly, Roden, Saing
- Group 5: Shrestha, Smith, Whitten, Christensen

Assignments and Grades

Students will be assessed in the following manner:

Class Participation	20%
Notebook Assignments	20%
Essay 1 Outline	5%
Essay 1 Final	15%
Essay 2 Outline	5%
Essay 2 Final	15%
Essay 3 Outline	5%
Essay 3 Final	15%

Participation (20%)

Class participation will be based on a student being present and on time to our zoom sessions, with readings completed, notes taken, ready to discuss materials, and actively participating in class. More detailed information in other parts of the syllabus, including the grading rubric included at the end. Merely logging in to zoom sessions (but not actively participating) assures you an attendance grade of "C-."

Notebook Assignments (20%)

For each class session, students will be asked to do some writing or an activity in the physical, paper, notebook used for this course. The syllabus outlines these assignments, though prompts may vary as the quarter goes on, responding to student interests and questions. Notebook assignments for the next class will always be reviewed at the end of each zoom session so students are clear about expectations. If a student is absent and isn't sure about the notebook assignment, it is their obligation to check with a classmate or the professor.

Some notebook assignments will be shared on the Canvas Discussion Board, and more detailed information about when, where, and how to post will be shared in class. When assignments are required to be posted, that should be done before the start of the class period. The faculty member will not give specific feedback on these materials. They will be deemed either "sufficient" or "insufficient." The intent of the notebook assignments is to help prepare the student for the class session, to guide reflection on course learning and individual learning habits, and to experiment with methods of thinking, writing, and organizing information away from the computer. Since each assignment will be a bit different, there isn't a page length requirement.

Essays (60%)

Each student will be required to write three essays during the quarter. The first two essays will be 3-4 pages in length and the final essay will be 4-5 pages long. Prompts and detailed instructions will be given for each essay in advance, the essay prompt will be discussed in class, and assignment descriptions will be posted on Canvas. For each essay assignment, students will develop an essay outline that they will share with their small group members and the professor. That outline must be uploaded to Canvas to share with others in the group on the day it's due. The outline will make up 5% of the grade for that essay. The final essay will be due during finals week, on Tuesday, December 8, 7 pm, via Canvas.

CHC Peer Leader

One of the innovations of this course is that there will be a CHC junior, Mikala Capage, who will be linked with our class. She will be participating in our Tuesday/Thursday class sessions on zoom and contributing to discussions. She will be making three presentations during the term focusing on getting settled into your freshman year; information about research opportunities and how to seek them out; and her personal experience participating in a large malaria research replication project. She will be holding 90 minutes of office hours each week to meet with students to talk about class content, writing assignments, or for more general chats about the university experience. Each student will be required to meet with Mikala at least once for a 15-minute chat by the midpoint of the term.

Mikala is a Biology Major and a Global Health Minor, and anticipates pursuing graduate work in Molecular Biology. She is a member of Professor Graboyes' [Global Health Research Group](#), has worked as a Research Assistant for the past year and a half, and is a co-author on a large replication project that will soon be submitted as an article to *Malaria Journal*. She also conducts research in a molecular biology lab, studying epigenetics. Mikala is uniquely qualified to serve as a peer leader for this class and to share her experience as a CHC student and as someone with specialized knowledge about malaria.

Accessibility & Accommodation

I realize that these are extremely challenging times, and unprecedented when we think about the level of stress, uncertainty, and new challenges we are all working under. I am committed to making this class as accessible and accommodating as possible while still maintaining the academic integrity of the course and the experience for all students. Please notify me if there are aspects of the instruction or design of this course that result in barriers to your participation, including accessibility issues.

If you are working with AEC and need an accommodation, please let me know as soon as possible and share the letter within a week of receiving it. You may also need to schedule a time to talk with me during office hours to discuss appropriate accommodations. If you receive an AEC letter mid-quarter, I cannot permit retroactive accommodation of any assignment for which the deadline has already passed; accommodations will be provided from the date the letter is received. You are also encouraged to contact the Accessible Education Center can be contacted at uoaec@uoregon.edu or 541-346-1155.

Academic Misconduct & Plagiarism

The University Student Conduct Code defines academic misconduct, which includes unauthorized help on assignments and examinations and the use of sources without acknowledgment. Academic misconduct is prohibited at UO. I will report misconduct to the Office of Student Conduct and Community Standards—consequences can include failure of the course. In our remote class, I will ask you to certify that your papers are your own work. If you are uncertain about how to avoid plagiarism, please see: <http://libweb.uoregon.edu/guides/plagiarism/students/>.

Mental Health Services

Life at college can often leave students feeling overwhelmed or stressed, experiencing anxiety or depression, struggling with relationships, or just need help navigating challenges in their life. If you're facing such challenges, please consider reaching out to the University Counseling Services. All clinical services are free and confidential. You can reach them at counseling.uoregon.edu or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number).

As your instructor if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do—for yourself and those you care about.

The Living, Breathing, Syllabus

(Fall 2020 will require flexibility on all our parts.

I will give you as much notice as I can about any changes to this syllabus, but I will strive to stick as much as possible to what is noted here.)

Part One—Malaria: an Introduction

What is malaria? Is malaria that we know today (2020) the same malaria of centuries ago? And is this disease understood the same by everyone: biomedical scientists, indigenous healers, the lay public? In these first few weeks of class we will be reading some scientific and historic works meant to create a common ground for discussion about malaria, how the disease is rooted in the natural environment, how there are many different etiologies and explanations for the malady of malaria, and what we know and don't know about the disease today.

[1] Tuesday, September 29—Introductions

Large Group: Introductions. Discussion of syllabus and expectations.

Small Groups: Introductions

What do we know? What do we *want* to know about malaria? What do you think is important to know about this topic? What are you most curious to learn about this term?

Notebook Assignment: Write me a letter telling me what you think is important for me to know about you. What are you excited about this term? What are you worried about? How might I support your learning this term? What kinds of positive learning experiences have you had in the past: what has worked well for you in the past? What are your long-term goals? After you've written your letter, you can snap a photo and upload it into the "assignment" area of Canvas, where I will read it.

[2] Thursday, October 1—Malaria Lifecycle, Basics

Large Group: Reading discussion: key themes for this class
Mini-lecture: malaria basics

Small Group: Begin to work together on creating a glossary in the back section of your notebook. You'll want to brainstorm terms together, add terms from readings, and continue to add to this list as the term goes on. You should draw terms from readings, lectures, and class discussions. Identify at least 10 terms to start with.

Notebook Assignment: What struck you as the most important points made in this article? Were there areas that you found confusing, or left you with questions? What were your questions? What else did you want to know about malaria that wasn't addressed in this article?

Reading for today's class: Melissa Graboyes and Zainab Alidina, "Keyword: Malaria," *African Studies Review*, in press.

Student Meetings

11-11.10: Whitten

11.10-11.20 Smith

11.20-11.30 Shrestha

[3] Tuesday, October 6—Alternative Understandings & the importance of Anthropology

Large Group: Mini-Lecture: systems for explaining disease.

Report out on notebook activity of mosquito observations and outdoor walks, review mosquito identification guide together

Small Group: How was the data for this article collected? Is there anything surprising about their findings? Are local people “right” or “wrong” about how they understand malaria and “cold fevers”? Take a look at the references (works cited) of this article. Do you know how to tell what is a book, article, or other type of source?

Notebook Assignment: This is a multi-part activity you should do over the weekend when you have time.

First, watch Italy videos 1-7 (in the “Italy videos” module) in order to see examples of walks I made in Italy and mosquito breeding sites I discovered far from my house, near my house, and even in my house! This will give you some ideas of what you are looking for. Second, go outside for a walk of at least a half hour. If you can walk in a less urban space, great. If not, no problem. Walk with intention to observe: can you find adult mosquitos, can you identify potential breeding spaces, or ideal mosquito habitats. Take pictures with your phone, take notes in your notebook and jot down questions. (Do you know what kind of mosquitos inhabit your area?) Write up your observations in your notebook.

Third, if possible, when on your walk or in your home, capture a mosquito. Look at it closely. If you have a magnifying glass or microscope, look at your mosquito underneath it. Finally, if you’ve found a mosquito, draw a picture of it in your notebook. Focus on areas used for identification: coloring patterns on the legs; length of the proboscis; wing patterns. (Don’t be cynical— this is a version of what entomologists and public health experts do!)

Reading for today’s class: Giles-Vernick, T., Traoré, A., Sirima, S. (2011). “Malaria, environmental change, and a historical epidemiology of childhood ‘cold fevers’: Popular interpretations from southwestern Burkina Faso.” *Health & Place* 17(3), 836-842.

[4] Thursday, October 8—Malaria as an Environmental Disease

Large Group: Distribute and discuss Essay 1 prompt

Mini-lecture: Malaria as an environmental disease

Small Group: Reading discussion, brainstorm on essay 1

Notebook Assignment: From the Manson’s reading, identify two things important, two things new, and two things that are unclear. For the McCann reading, why do you think I assigned a text about African environments? Make a list of what aspects of the environment you think are related to malaria, and how.

Reading for today’s class:

Manson’s *Tropical Diseases*, “Malaria” Chapter [focus on pgs. 1201-1205; 1210-1211 “Immunity”; 1238-1241; 1274-1281]

James McCann, *Green Land, Brown Land, Black Land*: chapters 1-2

Student Meetings

11-11.10 Saing
11.10-11.20 Roden
11.20-11.30 Munly

[5] Tuesday, October 13—Malaria’s Scope and Size, Over Time

DUE: Essay 1 Outline should be posted on the Canvas Discussion board ahead of class

Large Group: Mini-lecture: malaria’s footprint and burden, over time

Peer Leader Presentation: What makes a good outline? What makes helpful peer feedback?

Small Group: Discuss and provide feedback on essay 1 outline

Notebook Assignment: Prepare notes so you are ready to report on your article to others who did not read it. What does your article say about malaria rates, over what time period? What is the scale of their analysis? Do you think there are any weaknesses to their analysis, or questions you have? Why might local patterns be different than global ones?

Reading for today’s class: half the class reads one, half the class reads the other.

Murray, Christopher J. L., Lisa C. Rosenfeld, Stephen S. Lim, Kathryn G. Andrews, Kyle J. Foreman, Diana Haring, Nancy Fullman, Mohsen Naghavi, Rafael Lozano, and Alan D. Lopez. “Global Malaria Mortality between 1980 and 2010: A Systematic Analysis.” *Lancet* 379, no. 9814 (2012): 413–31.

Björkman A, Shakely D, Ali AS, Morris U, Mkali H, Abbas AK, et al. “From high to low malaria transmission in Zanzibar-challenges and opportunities to achieve elimination.” *BMC Med* 2019 01;17(1):14.

[6] Thursday, October 15

Guest Speaker: Dr. Angela Rovak, CHC First-Year Academic Advisor

Notebook Assignment: Not in your notebook, but using the fillable PDF “Four-Year Course Plan Template” found on Canvas in the “Syllabus & Assignments” Module, make a rough draft of your 4-year plan.

Reading for today’s class: review materials on the CHC student Canvas page and sample 4 year plans (I will email and post links)

Student Meetings

11-11.10 Morley,
11.10-11.20 Mcdonald
11.20-11.30 Lefevre

[7] Tuesday, October 20—Remembering Malaria, Creating New Knowledge: Oral Evidence

DUE: Essay 1 uploaded to Canvas “Assignments” area before class begins

Potential Guest Speaker: Judith Meta, MPH

Large Group: Guest Presentation & review Swahili language interview and livescribe notes

Notebook Assignment: Have you ever been interviewed, or interviewed someone? How “messy” of a process is it to be on either side, and how is the final result a product of both people and their interactions? Reflect on the many steps of doing interviews: coming up with questions, translating to another language, finding someone to interview, recording the discussion, transcribing, and interpreting. What are some potential advantages and shortcomings to this method of data collection?

Reading for today’s class: “English & Swahili Verbal Consent Script—Week 4”
“Interview Notes_DrXXXX—Week 4”

Review online, but no need to print: “Swahili Interviewing Tool—Week 4” (in “Additional Sources” module on Canvas)

SPECIAL EVENT

Wednesday, October 21, 8.30-9.30 am PST

virtual talk by Professor Graboyes

“Rebounding Malaria: Risks, Realities, Replications, and Historical Lessons”

London School of Tropical Medicine & Hygiene

log in information: TBA on Canvas

[8] Thursday, October 22—Sources in Dialogue: Archival Evidence

Large Group: Mini-lecture: different types of evidence, regulations for “human subjects” research, doing mixed-methods research ethically

Small Group: what were you able to figure out about the pg. 45 map and pg. 49 figure? What is clear? What do you have questions about? What could this type of information have to do with malaria? Why might it be helpful and appropriate to present and evaluate data in different forms? (written, tables, maps, films, etc.)

Notebook Assignment: What can you figure out about the McCarthy report? Why do you think it was produced, by whom, and how? What kinds of information are included in the report, and did any of the topics surprise you? Identify 2 major points McCarthy makes about malaria in Zanzibar.

Reading for today’s class: McCarthy, “Malaria Report, Zanzibar Research Unit. 1941”
Focus on the first 20 pages, but review the entire document.

Pringle, “Malaria and Vital Rates”—don’t read article, just review map on page 45 and figure on page 49.

Student Meetings

11-11.10 Lawrence,

11.10-11.20 Herbers

11.20-11.30 Froehlich

Part Two—Technologies Old and New

In this section, we will consider the term “appropriate technology” and how it’s linked to particular parts of the world. What counts as new technology today (GM mosquitos, vaccines, gene drives, rapid diagnostic tests) and what counted as “new” technology half a century ago (DDT)? How has rhetoric about technology remained the same over the past century, and how are these new technologies discussed by organization conducting malaria interventions today? What does it mean to take a “STS” (Science and Technology Studies, or Science, Technology, Society) approach to considering technology?

[9] Tuesday, October 27—What is Technology? What makes it “Appropriate”?

Large Group: Peer Leader Presentation—focus on research and getting involved

Small Group: Discuss the advantages and limitations of learning through visuals, such as through documentaries. Are films more “real” or “accurate” than other types of sources? How might films also have biases or shortcomings? What kinds of people and knowledge were show-cased in the film?

Notebook Assignment: Before class, watch the 23-minute BBC Documentary, “Our World: Living with Malaria” discussing the host decoy trap being used in Burkina Faso. What struck you and what did you learn, visually, from the film? Was the topic of “appropriate technology” addressed directly in the film?

Reading for today’s class: Everyone watches the documentary and reads Krabill. Half the class reads Hawkes and half the class reads Abong’o.

Watch the 23-minute BBC Documentary, [“Our World: Living with Malaria”](#)

Ron Krabill, “Service, Activism, and Mountains Beyond Mountains”

Hawkes, et al. “Exploiting *Anopheles* responses to thermal, odour and visual stimuli to improve surveillance and control of malaria.” *Nature Scientific Reports* (2017).

Abong’o B, et al. “Host Decoy Trap (HDT) with cattle odour is highly effective for collection of exophagic malaria vectors.” *Parasites and Vectors*, (2008)11:533.

[10] Thursday, October 29—Control and Elimination Strategies over Time

Large Group: Mini-Lecture: Malaria Control Strategies Past to Present

Small Group: Discuss and organize your thoughts about Packard’s two chapters. How do these chapters fit into what we’ve learned about malaria to date? What kinds of similarities or differences do you notice about how Packard presents this history? What questions do you have?

Notebook Assignment: This is a multi-part activity.

First, watch Italy videos 8-16 (in the “Italy videos” module) in order to see the kinds of mosquito traps and changes I tried to make to reduce mosquito populations near where I was living. Can you think of other strategies I could have tried to reduce mosquito numbers?

Second, review your notebook activity from when you went out to walk and look for mosquito habitats. Brainstorm what kinds of control strategies you could use in your area

to try to reduce mosquito numbers. What kinds of traps or strategies have you used in the past?

Finally, draw a few pictures showing how these traps or strategies would be effective in reducing mosquito numbers, and at what stage.

Reading for today's class: Packard "Making of a Vector-Borne Disease" and Packard, "Malaria Dreams"

Student Meetings

11-11.10 Frainey

11.10-11.20 Fisher

11.20-11.30 Deering

[11] Tuesday, November 3—Old "New" Technology and New "Old" Technology
Guest Speaker: Dr. James Webb

Notebook Assignment: We have arrived at the mid-point of the quarter! Please divide a page in your notebook vertically with a + (positive) on one side and a delta symbol (change) on the other side. List things that are going well for the class, and for you personally within the class. On the other side, list things that you would like to see modified/changed both in the class writ large, and for your personal participation in it. Please snap a picture of your page, and I will have you anonymously share it at the start of class using the chat function on zoom.

Reading for today's class: Webb, James. "The First Large-Scale Use of Synthetic Insecticide for Malaria Control in Tropical Africa: Lessons From Liberia, 1945-1962." *Journal of the History of Medicine and Allied Sciences* 66, no. 3 (July 1 2001): 347-376, 20.

[12] Thursday, November 5—Genetically Modified Mosquitos

Large Group: Reporting out on mid-quarter reflections + class adjustments
Distribution of Essay 2 prompt

Small Group: Brainstorming ideas for Essay 2

Notebook Assignment: What did you know about genetically modified organisms before reading this article? Do Genetically Modified mosquitos seem the same or different than genetically modified crops? Does it matter that GM mosquitos are being tried in Burkina Faso and Brazil rather than the United States? Do you think everyone in a society must agree for GM mosquitos to be released?

Reading for today's class:

Beisel, Uli, and John Kuumuori Ganle. "The Release of Genetically Engineered Mosquitoes in Burkina Faso: Bioeconomy of Science, Public Engagement and Trust in Medicine." *African Studies Review* 62.3 (2019): 164-173.

Student Meetings

11-11.10 Clark

11.10-11.20 Carstairs,
11.20-11.30 Byron
11.30-11.40 Betcone

[13] Tuesday, November 10: Vaccine Dreams and Disagreements

DUE: Essay 2 Outline should be posted on the Canvas Discussion board ahead of class

Large Group: Mini-Lecture: the RTS,S vaccine

Small Group: discussion and review of essay outlines

Notebook Assignment: after reading about the malaria vaccine, and learning about the limitations of the vaccine, do you think it's the right use of scarce public health funds to go ahead with testing this vaccine on a wider scale? Justify your position and also sketch the opposing arguments.

Reading for today's class: Everyone reads Medicins Sans Frontieres statement, half the class reads 2016 WHO document, half reads 2020 document.

[Medicins Sans Frontieres Response to WHO Guidance on RTS,S:](#)

[WHO "Q&A on the Malaria Vaccine Implementation Programme" March 2020](#)

[WHO "Malaria Vaccine: WHO Position Paper—January 2016"](#)

[14] Thursday, November 12—Small Group Meetings with Professor Graboyes about Essay 2

Meetings will be held with groups of 6-7 students at a time to talk about essay 2

Student Meetings

10.15-10.35: Morley, Munly, Roden, Saing, Shrestha, Smith, Whitten

10.40-11.00: Frainey, Froehlich, Herbers, Lawrence, Lefevre, McDonald

11.05-11.25: Betcone, Byron, Carstairs, Clark, Deering, Fisher, Christensen

Notebook Assignment: Look back at your essay 1 outline, final essay, and my feedback on it. Make a list of things that you did well in that essay and feel proud of (either in how you completed the work or in terms of the final product). Also make a list of things you'd like to improve on for essay 2, and how you might make those improvements.

Reading for today's class: "Writing Concisely" and "Revising Drafts" Tip Sheets from the UNC Writing Center.

Part Three—Ethical Dilemmas, Past and Present

The final weeks of the class will probe some of the ethical challenges raised by malaria, and particularly the risks of rebound malaria epidemics. What is the role of community members in deciding how much risk individuals/communities are comfortable with? What are the responsibilities of international agencies running interventions? How are these questions similar or different from questions from 70 years ago? How are contemporary calls for global malaria eradication addressing or ignoring these ethical questions, and how might all of this be considered in light of Covid-19?

[15] Tuesday, November 17—Rebound Malaria

DUE: Essay 2 uploaded to Canvas “Assignments” area before class begins

Large Group: Mini-Lecture: rebound malaria and acquired immunity

Small Group:

Notebook Assignment: What kinds of ethical questions can you imagine being associated with malaria interventions? Can you name different issues that may be relevant depending on whether you are a public health expert leading an intervention or a local community on the receiving end of interventions? Do you think the ethical questions with contemporary malaria control are mostly similar or different from those in the mid-1900s?

Reading for today’s class: NO READING—reading catch up day!

[16] Thursday, November 19—Old and New Ethical Concerns

Large Group: Gaps in our understanding of acquired immunity and ethical implications

Small Group: Discuss the different viewpoints of group members and decide as a group what you would do if faced with the information available to participants at the Kampala Conference.

Notebook Assignment: What was the crux of the argument at the Kampala Conference? Lay out the different perspectives and the supporting evidence. Do you think this was a problem unique to the mid-1900s? If you had to decide what to do, what would you recommend and why?

Reading for today’s class: Dobson, M.J., M. Malowany, and R.W. Snow. “Malaria Control in East Africa: The Kampala Conference and the Pare-Taveta Scheme: A Meeting of Common and High Ground.” *Parassitologia* 42, no. 1-2 (2000): 149-166.

[17] Tuesday, November 24—Replicating and Creating New Malaria Knowledge

Large Group: Peer Leader Presentation—focus on malaria replication research project
Distribute and discuss Essay 3 prompt

Small Group: Brainstorming and note taking on essay 3 prompt. Responding to prompts from peer leader presentation.

Notebook Assignment: Different students will be assigned different sections of the paper to take notes on in-depth and to be ready to explain other members of the class. Was everything clear in your section? What questions do you have about their process (method) or their conclusion?

Reading for today’s class: Cohen, J., Smith, D., Cotter, C., Ward, A., Yamey, G., Sabot, O., Moonen, B. (2012). “Malaria resurgence: a systematic review and assessment of its causes.” *Malaria Journal* 11(1), 122.

[18] Thursday, November 26—NO CLASS—Thanksgiving

[19] Tuesday, December 1—Ethics, Scarcity, and Malaria in the Time of Covid-19

Large Group: Mini-Lecture: Malaria, ethics, social justice and connections with Covid

Small Group: Did anyone know DDT was used in this way? How should we judge the potential for DDT to save lives now again future environmental harms?

Notebook Assignment: Most public health and medical systems in Africa are struggling to respond to Covid-19. Knowing there are shortages of funds, human capacity, lab space, hospital beds, and other types of resources, should we continue to focus on malaria control, elimination, or eradication? What might be the costs of ignoring malaria and focusing solely on Covid? What factors should we weigh when making such a decision, and who should make such decisions for a country?

Reading for today's class: "What the World Needs Now is DDT" NYTimes and Packard, chapter 8, "Rolling Back Malaria"

[20] Thursday, December 3—Class Reflections & Goodbyes!

DUE: Essay 3 Outline should be posted on the Canvas Discussion board ahead of class

Large Group: Class themes, reflections

Small Group: discussion of outlines

Notebook Assignment: Re-read the notebook assignment you completed for our first class. Reflect on what you originally found important, interesting, and confusion about this article and what you stated you knew and had questions about at the start of the term. Upon re-reading this article after 10 weeks of our learning together, what stands out to you. What is clearer? What is still confusing? How has your understanding of malaria changed?

Reading for today's class: Melissa Graboyes and Zainab Alidina, "Keyword: Malaria," *African Studies Review*, in press.

****DUE to Canvas: Final papers must be uploaded by Tuesday, December 8, 7 pm****

Participation Rubric

Participation is worth 20 points over the entire term. You will know how you're doing by the end of week 5, when I'll assign the first ten participation points to assess your performance for the first half of the quarter. This will allow you to adjust your performance if you're not happy. With your grade. I will assign the second ten points in week 10, which will capture your level of participation in weeks 6-10. You can help monitor how you're doing by taking a look at this rubric, which I use to assess participation.

A

- Attends all classes and contributes to most discussions
- Demonstrates that you have read and thought about assigned readings
- Pushes the discussion in provocative directions that transcends readings and illuminates broader course themes
- Respects and supports other students in discussion

B

- Attends class regularly and participates often
- Shows that you have read most assigned readings
- Usually respects and supports other students in discussion
- Contributions prove competence but do not necessarily demonstrate innovation

C

- Absent from class repeatedly or attends regularly but rarely participates
- Not consistently respectful and constructive
- Contributions do not reflect in-depth understanding of readings

D

- Absent from class repeatedly, rarely participates when in attendance
- Contributions rarely reflect completion of the readings
- Disrespectful or destructive contributions

F

- Rarely attends class (more than 5 absences)
- Does not participate when present
- Does not advance the discussion or actively impedes progress in discussion