SAMPLE UNDERGRADUATE COURSE SYLLABUS

The Formula for Better Health: How to Save Millions of Lives – Including Your Own

Course Number
Semester/Term Year

FACULTY:	TEACHING ASSISTANT:
OFFICE:	TA CONTACT INFO
TELEPHONE:	TA EMAIL:
EMAIL:	CLASS SESSION DAYS/TIMES:
OFFICE HOURS:	REVIEW SESSION DAYS/TIMES:

NOTE: This syllabus is designed for a one-semester course based on The Formula. Educators can, alternatively, use any of the weeks, instructor guides (10, one for each chapter) or case studies (11, two for the entire formula and the remainder illustrating components of the formula) as standalone or linked components of other coursework.

Course Overview

If we already possess the scientific and technical knowledge to prevent millions of deaths, why do we fail so often to act? What can we learn from history's greatest public health victories (and failures) to build a healthier future?

Every year, millions of people die from preventable causes—not because solutions are unknown, but because the path from knowledge to action is blocked by invisible barriers. This course equips students with a proven formula, developed over decades of frontline experience in global public health, to break through those barriers: *see* the invisible, *believe* in a healthier future, and *create* change. Through case studies that range from the largest outbreak of multidrug-resistant tuberculosis the United States has ever seen to the global fight against hypertension, students will learn to diagnose why health threats persist, build coalitions that overcome political and institutional resistance, and design programs that work at scale. The course draws on the perspectives of public health researchers, policymakers, private-sector actors, and communities to show that saving lives demands not just technical knowledge but strategic skill and political competence.

This course is for you if you want to understand why preventable suffering persists and what it takes to stop it. You do not need a background in science. You need curiosity about how the world works, a willingness to grapple with hard tradeoffs, and an interest in what it actually takes to turn good ideas into saved lives.

Learning Objectives

By the end of this course, students will be able to

- **Identify invisible threats** through surveillance data, epidemiological evidence, and critical analysis, and diagnose why individuals, institutions, and societies fail to act on what the data reveal.
- **Challenge and overcome the assumption that change is impossible.** Study why societies accept preventable suffering as inevitable, and learn from cases where that assumption proved wrong.
- **Design programs that succeed at scale** by applying principles of simplicity, speed, and scalability, and by building effective organizations, communications strategies, and political coalitions.
- **Bridge the gap between evidence and impact** by applying the ***See, Believe, Create*** formula to analyze emerging health threats, overcome barriers to action, and design scalable, sustainable solutions.

Prerequisites

There are no prerequisites for this course. Introductory public health coursework will be beneficial but is not required.

CEPH Competency Alignment: This course addresses CEPH 2024 MPH Foundational Competencies C6 (dimensions of the policy-making process), C7 (assess population needs), C8 (cultural values in public health policy), C9 (population-based policy and program design), C10 (governmental and non-governmental roles in population health), C12 (stakeholder engagement), C16 (leadership, governance, and management), and C19 (communicate audience-appropriate public health content). Detailed competency crosswalks are available in the accompanying instructor guides.

Major Assignments and Exams

Suggested assignments:

Final Capstone: The Formula Synthesis Project A final presentation and accompanying synthesis paper. Groups of 3-5 students will select a major, unresolved public health threat and apply each part of the formula to explain why the threat remains invisible or ignored, how we can learn from previous cases to address it, and how a programmatic package should be designed and implemented to address the problem. Students should work together on a 8-10 page paper and a 15-minute presentation delivered to the class at the end of the semester.

Capstone Milestones: Week 3: Form groups and submit a one-paragraph topic proposal. Week 6: Submit a two-page outline with preliminary sources. Week 9: Submit a draft paper for peer review. Weeks 11–12: Final presentations and paper due.

Midterm Assessment 1 (Week 4): A short analytical essay (3–5 pages). Students will select one public health threat discussed in Unit 1 and apply the ‘See’ framework: What made the threat

invisible? What cognitive, economic, or political forces delayed recognition? What surveillance or data strategies ultimately brought it to light?

Midterm Assessment 2 (Week 8): A case-based policy memo (3–5 pages). Students will analyze a case from Units 2–3, identifying the barriers to action and evaluating the strategies used to overcome them. The memo should recommend how the lessons from this case could apply to a current public health challenge.

Class Attendance/Participation

Course discussions and activities will benefit from consistent attendance and active participation from all students.

Select sessions may feature guest speakers from public health practice, policy, or advocacy. These sessions offer direct exposure to the strategic and political realities of public health work and are not recorded; attendance is expected.

Insert additional attendance/participation policies here.

Classroom Conduct

Course modules are designed with cases and activities that require discussion and engagement with other students in the class. Engagement during discussion includes not only contributing one's own views, but also listening carefully to peers, considering their arguments, and responding constructively. Because this course addresses topics such as health behaviors, social determinants of health, inequality, and politics, students may bring diverse perspectives shaped by their backgrounds and experiences. Disagreement is expected and encouraged when it is grounded in evidence and presented respectfully. Debate should always focus on the substance of an argument and the evidence provided, never on any personal characteristic of the speaker.

Insert additional classroom conduct policies here.

Grading

Suggested grading weights: Participation and attendance (15%), Midterm Assessment 1 (15%), Midterm Assessment 2 (20%), Capstone paper and presentation (40%), Peer review of capstone drafts (10%).

Course Materials and Access

The primary text for this course is

> Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025.

Below are optional texts for students interested in learning more about the topic

> Rosling, Hans, Ola Rosling, and Anna Rosling Rönnlund. *Factfulness: Ten Reasons We're Wrong About the World—and Why Things Are Better Than You Think*. Flatiron Books, 2018.
>
> Foege, William H. *House on Fire: The Fight to Eradicate Smallpox.* University of California Press, 2011.

Rose, Geoffrey. *The Strategy of Preventive Medicine*. Oxford University Press, 1992.

Other Course Policies

Insert your institution's academic integrity policy and disability accommodations statement here.

Use of Generative AI: Students may use generative AI tools (e.g., ChatGPT, Claude) to brainstorm ideas, check grammar, or explore background concepts. However, all submitted written work must reflect the student's own analysis, argument, and voice. AI-generated text may not be submitted as original work. When AI tools contribute substantively to any stage of an assignment, students must disclose their use and describe how the tool was used. The core skill this course develops—the ability to analyze a public health problem and design a strategic response—cannot be outsourced to a machine. Instructors reserve the right to ask students to explain or defend any submitted work orally.

Course Schedule

Class Meetings, Readings, and Assignments:

Unit 1: Seeing the Invisible

Week 1

How do we identify health threats that hide in plain sight?

Class 1: Class introduction

Case Study: Smallpox

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Prologue

Class 2: Making invisible threats visible

Case Study: Smoking Decline Stall in NYC

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 1

- German RR, Lee LM, Horan JM, Milstein RL, Pertowski CA, Waller MN; Guidelines Working Group, CDC. "Updated Guidelines for Evaluating Public Health Surveillance Systems." MMWR Recomm Rep. 2001;50(RR-13):1–35.

Week 2

Why do individuals, corporations, and governments ignore threats they can plainly see—and how can we change their calculus?

Class 3: Why we ignore visible threats: The Cassandra Curse

Case Study: Alice Hamilton and the Cassandra Curse

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 2

Class 4: Why we ignore visible threats: Economic Interests

Readings:

- Frieden TR, Berwick DM. "The 'Million Hearts' Initiative." New England Journal of Medicine. 2011

- Hurt RD, Robertson CR. "Prying Open the Door to the Tobacco Industry's Secrets About Nicotine." JAMA. 1998.

Video:

- Dan Ariely, "Are We in Control of Our Own Decisions?" TED Talk, 2008

Week 3

When is evidence sufficient to act, are randomized controlled trials the gold standard, and how do we translate evidence into effective program design?

Class 5: The Pathway to Progress: Technical Rigor

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 3

- Frieden TR. "Evidence for Health Decision Making—Beyond Randomized, Controlled Trials." New England Journal of Medicine. 2017;377(5):465–475.

Class 6: The Pathway to Progress: Tools for program design

Case Study: Sudden Infant Death Syndrome (SIDS)

Readings:

- Frieden TR. "A Framework for Public Health Action: The Health Impact Pyramid." American Journal of Public Health. 2010;100(4):590–595.
- Mitchell EA et al. "Results from the 1st Year of the New Zealand Cot Death Study." New Zealand Medical Journal. 1991..

Unit 2: Believe in a Healthy Future

Week 4

Why do we accept preventable suffering as inevitable, and what does it take to believe change is possible?

Class 7: Illusion of inevitability

Case Study: Tuberculosis in India

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 4
- Rosling H, Rosling O, Rönnlund AR. *Factfulness: Ten Reasons We're Wrong About the World—and Why Things Are Better Than You Think*. Flatiron Books, 2018: Chapter 1

Class 8: Mid-term check point

First recommended mid-term evaluation point

Unit 3: Create

Week 5

How do effective leaders organize teams and institutions to turn public health plans into action?

Class 9: Organize for impact

Case Study: Ebola in Lagos: Organization as Intervention

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 5
- Covey SR. The 7 Habits of Highly Effective People. Free Press, 1989: Chapter 3

Class 10: Building a team

Readings:

- Lencioni P. The Five Dysfunctions of a Team: A Leadership Fable. Jossey-Bass, 2002.

Week 6

What separates programs that work at scale from those that remain pilot projects?

Class 11: Simple, scalable solutions

Case Study: Styblo HEARTS

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 6
- Karen Brudney and Jay F. Dobkin, "Resurgent Tuberculosis in New York City: Human Immunodeficiency Virus, Homelessness, and the Decline of Tuberculosis Control Programs," The American Review of Respiratory Disease 144, no. 4 (October 1, 1991): 745–749.
- World Health Organization, A Brief History of Tuberculosis Control in India (Geneva, Switzerland, 2010), https://www.who.int/docs/default-source/documents/tuberculosis/9789241500159-eng.pdf?sfvrsn=48c90fb6_2.

Class 12: The Triad in practice

Readings:

- Kateh F, et al. Rapid Response to Ebola Outbreaks in Remote Areas—Liberia, July-November 2014. *MMWR*. 2015;64(7):188–192.

- Bell, Beth P., et al. "Overview, Control Strategies, and Lessons Learned in the CDC Response to the 2014–2016 Ebola Epidemic." MMWR Supplements 65, no. 3 (July 7, 2016): 4–11. https://doi.org/10.15585/mmwr.su6503a2.

Week 7

How do we communicate to change behavior, and what happens when a crisis demands immediate public trust?

Class 13: Principles of communication

Case Study: Ebola in Guinea: Communication as Intervention

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 7
- Wakefield MA, et al. "The Use of Mass Media Campaigns to Change Health Behaviour." The Lancet. 2010;376(9748):1261–1271.
- CDC. "Tips from Former Smokers Campaign." cdc.gov/tips.

Class 14: Crisis communication

Case Study: Ebola in Guinea: Mandates, Trust, and Legal Authority

Readings:

- CDC. "Crisis & Emergency Risk Communication (CERC) Manual." https://www.cdc.gov/cerc/php/cerc-manual/index.html: Introduction and Psychology of a Crisis

Week 8

How do public health leaders advance progress in the face of powerful opposition?

Class 15: Progress despite opposition

Case Study: Smoke-Free New York: Politics and Strategy

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 8

- Jacobson PD, Gostin LO. "Overcoming Legal Barriers to Public Health Interventions." JAMA. 2009;302(2):169–171

- Lee K, Freudenberg N. "Public Health Roles in Addressing Commercial Determinants of Health." Annual Review of Public Health. 2022;43:375–395.

- Greer SL, et al. "Policy, Politics and Public Health." European Journal of Public Health. 2017;27(Supplement 4):40–43.

Optional reading: Carpenter, Murray. *Sweet and Deadly: How Coca-Cola Spreads Disinformation and Makes Us Sick*. The MIT Press, 2025.

Class 16: Check point

Second recommended evaluation point

Unit 4: The Formula in Practice

Week 9

What can past pandemics and the global hypertension crisis teach us about applying the full formula?

Class 17: Preventing the next infectious disease pandemic

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 10

- Frieden, Tom. "7-1-7: An Organising Principle, Target, and Accountability Metric to Make the World Safer From Pandemics." The Lancet 398, no. 10300 (July 6, 2021): 638–40.

- The Lancet COVID-19 Commission. "The Lancet COVID-19 Commission Final Report." 2022.

Class 18: The world's deadliest pandemic today

Readings:

- Pickersgill S, et al. "Modeling Global 80-80-80 Blood Pressure Targets and Cardiovascular Outcomes." Nature Medicine. 2022;28(8):1693–1699.

- Frieden TR, Bloomberg MR. "Saving an Additional 100 Million Lives." The Lancet. 2018;391(10121):709–712.

Week 10

How do population-level forces shape individual health, and what can each person do within those constraints?

Class 19: Six determinants of personal health

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives-Including Your Own*. The MIT Press, 2025: Chapter 9

Class 20: Personal politics and the structural environment

Readings:

- Reeves, Mathew J., and Ann P. Rafferty. "Healthy Lifestyle Characteristics Among Adults in the United States, 2000." Archives of Internal Medicine 165, no. 8 (April 25, 2005): 854.

Videos:

- CDC: "Only 1 in 10 Adults Get Enough Fruits or Vegetables." (cdc.gov).

Weeks 11-12

Class 21: The Formula in Action: Stopping Tuberculosis in New York City

Case Study: Stopping Tuberculosis in New York City (In-Depth)

This full-session case study applies the complete See, Believe, Create formula to the largest outbreak of multidrug-resistant tuberculosis the United States has ever seen. Students will analyze how New York City identified the crisis, built the political will and organizational capacity to respond, and designed a program that reversed the epidemic. Pre-session reading required.

Readings:

- Frieden, Tom et al. Tuberculosis in New York City — Turning the Tide. New England Journal of Medicine 333, no. 4 (July 27, 1995): 229–33.

Class 22-24: Capstone presentations

Each group delivers a 15-minute presentation followed by 5 minutes of Q&A. Written papers are due on the first day of Week 11.

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OFFICE:	TA CONTACT INFO
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NOTE: This syllabus is designed for a semester-long seminar for master's and doctoral students based on *The Formula.* Educators can, alternatively, use any of the weeks, instructor guides (10, one for each chapter) or case studies (11, two for the entire formula and the remainder illustrating components of the formula) as standalone or linked components of other coursework.

Course Overview

If we already possess the scientific and technical knowledge to prevent millions of deaths, why do we fail so often to act? What were the catalysts for some of history's greatest public health victories, and what can we learn from the obstacles that caused notable public health failures?

The path from evidence to action is blocked by institutional and behavioral barriers: misaligned economic incentives, institutional path dependence, cognitive biases, and power asymmetries that are embedded in our political systems. This graduate seminar trains students to analyze and overcome these barriers by applying a proven formula: *see* the invisible, *believe* in a healthier future, and *create* change. Through case studies that range from the largest outbreak of multidrug-resistant tuberculosis the United States has ever seen to the global fight against hypertension, students will build the skills to diagnose why health threats persist, build coalitions that overcome political and institutional resistance, and design programs that work at scale. The course draws on the perspectives of public health researchers, policymakers, private-sector actors, and communities to show that saving lives demands not just technical knowledge but strategic skill and political competence.

This course is for you if you want to understand why the world fails to act on what it already knows — and develop the analytical and programmatic tools to change that. Students will examine the institutional, economic, and cognitive forces that block the translation of evidence into action; engage with theory from political economy, behavioral science, and organizational analysis; and apply these frameworks to real cases where millions of lives were at stake. The course develops both scholarly rigor and strategic competence: the ability to diagnose a problem with the precision of a researcher and address it with the effectiveness of a leader.

Learning Objectives

By the end of this course, students will be able to

- Analyze why health threats remain invisible — how surveillance systems, political interests, and institutional incentives determine which problems get measured and addressed.
- Explain why societies treat preventable suffering as inevitable — the psychological, economic, and political forces that sustain inaction and the conditions under which they can be overcome.
- Critically assess what makes public health programs succeed or fail at scale — the organizational and design factors that separate programs reaching entire populations from those that stay pilot projects.
- Build and sustain coalitions for health — how to analyze and navigate political opposition, communicate effectively, and align institutional incentives with population health goals.
- Evaluate ***The Formula*** as an analytical framework — apply the *See, Believe, Create* model to real cases, and identify more and less effective uses of the approach.

Prerequisites

This course is designed for students enrolled in Master's of Public Health (MPH) or Master's of Science (MS) programs. Doctoral students are welcome. Introductory public health and health policy coursework is strongly recommended. However, motivated students without formal public health training can succeed if willing to do supplementary reading.

CEPH Competency Alignment: This course addresses CEPH 2024 MPH Foundational Competencies C6 (dimensions of the policy-making process), C7 (assess population needs), C8 (cultural values in public health policy), C9 (population-based policy and program design), C10 (governmental and non-governmental roles in population health), C12 (stakeholder engagement), C16 (leadership, governance, and management), and C19 (communicate audience-appropriate public health content). Detailed competency crosswalks are available in the accompanying instructor guides.

Course Format, Assignments, and Grading

This course is designed as a graduate seminar that meets once weekly for 12 weeks in a semester-based system.

Students are expected to arrive having completed the readings and ready to engage critically with the content. Each session will be approximately two-thirds student-led discussion and one-third instructor synthesis. The student's grade will reflect both the quality of seminar engagement and the rigor of written analysis, with the capstone project carrying the greatest weight.

Suggested grading breakdown:

Participation

1. Weekly Discussion Briefs (20%)

Students will submit one-page briefs due 24 hours before each class. These should be analyses of the material, not summaries. Graded credit/no credit with qualitative feedback.

2. Seminar Leadership (10%)

Each student will be assigned to lead discussion for one class session. Discussion leaders will prepare 3–5 discussion questions, identify tensions or contradictions across readings, and facilitate 30 minutes of structured discussion or debate. Students will be evaluated on preparation, intellectual depth, and facilitation skill.

Assignments

3. Midterm Policy Analysis (25%)

An 8–10 page policy analysis of one public health intervention discussed in Units 1–3 or another of their choosing. Using **The Formula** as an analytical framework: the paper should (a) assess the evidence base and its limitations, (b) identify the political economy — who gained, who lost, who blocked progress and why, (c) evaluate what worked at scale and what didn't, (d) recommend how the approach could apply to an analogous current threat. The policy analysis should engage with primary literature beyond course readings.

4. Final Capstone Project (45%)

A final project to be completed individually or in pairs that evaluates a public health threat NOT covered in the course. The capstone will include a written case analysis (15–20 pages) and an oral presentation (20 minutes + 10 minutes Q&A) given to the class. The capstone paper should apply the full formula and address where it falls short.

Milestones

Week 3: Submit 1-page problem statement and preliminary source list

Week 6: Submit 4-page draft of the "See" and "Believe" sections with annotated bibliography

Week 8: Peer review (each student reviews one peer's draft)

Week 9: Submit revised full draft

Weeks 11–12: Presentations and final paper due

Class Attendance/Participation

Course discussions and activities will benefit from consistent attendance and active participation from all students. Select sessions may feature guest speakers from public health practice, policy, or advocacy. These sessions offer direct exposure to the strategic and political realities of public health work and are not recorded; attendance is expected.

Insert additional attendance/participation policies here.

Classroom Conduct

Course modules are designed with cases and activities that require discussion and engagement with other students in the class. Engagement during discussion includes not only contributing one's own views, but also listening carefully to peers, considering their arguments, and responding constructively. Because this course addresses topics such as health behaviors, social

determinants of health, inequality, and politics, students may bring diverse perspectives shaped by their backgrounds and experiences. Disagreement is expected and encouraged when it is grounded in evidence and presented respectfully. Debate should always focus on the substance of an argument and the evidence provided, never on any personal characteristic of the speaker.

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Course Materials and Access

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Suggested additional reading:

> Rosling, Hans, Ola Rosling, and Anna Rosling Rönnlund. *Factfulness: Ten Reasons We're Wrong About the World—and Why Things Are Better Than You Think.* Flatiron Books, 2018.
>
> Foege, William H. *House on Fire: The Fight to Eradicate Smallpox.* University of California Press, 2011.
>
> Rose, Geoffrey. *The Strategy of Preventive Medicine.* Oxford University Press, 1992.

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Course Schedule

Class Meetings, Readings, and Assignments:

Unit 1: Seeing the Invisible

Class 1: Introduction and Making Invisible Threats Visible

Discussion Questions:

- What makes a health threat visible — and to whom? What does it take for a problem that exists to be recognized and acted on?

- Making threats visible is not a neutral, technical exercise. Who decides what gets counted? Whose risks tend to be rendered visible, and whose remain invisible or undercounted?
- What criteria could we use to distinguish legitimate public health surveillance from overreach or abuse? How should public health practitioners navigate the tensions between collective safety, individual rights, and state power in designing and using surveillance systems?

Case Studies: Smallpox, Smoking Decline Stall in NYC

Readings:

- Frieden, Tom. *The Formula for Better Health: How to Save Millions of Lives—Including Your Own.* The MIT Press, 2025: Prologue and Chapter 1.
- Fairchild AL, Bayer R, Colgrove J. *Searching Eyes: Privacy, the State, and Disease Surveillance in America.* University of California Press, 2007: Chapter 1.
- German RR, Lee LM, Horan JM, Milstein RL, Pertowski CA, Waller MN; Guidelines Working Group, CDC. "Updated Guidelines for Evaluating Public Health Surveillance Systems." *MMWR Recomm Rep.* 2001;50(RR-13):1–35.
- Mostashari F, et al. "Smoking Practices in New York City: The Use of a Population-Based Survey to Guide Policy-Making and Programming." *Journal of Urban Health.* 2005;82(1):58–70.

Class 2: Why We Ignore Visible Threats: The Cassandra Curse and Economic Interests

Discussion Questions:

- The chapter argues that the Cassandra curse stems from inaccurate perceptions of self, world, and future. Do you agree?
- The prevention paradox holds that interventions with diffuse benefits for many generate less political support than the concentrated costs they impose on a few. Where do we see this dynamic operating today, and what strategies have succeeded in overcoming it?
- Hyperbolic discounting leads people and policymakers to undervalue future health gains relative to present costs. What specific techniques — in policy design, communication, or program structure — can counteract this bias?
- The tobacco case shows that what looks like free individual choice was engineered by industry. How should this change the way we think about personal responsibility in public health policy?

Case Study: Alice Hamilton and the Cassandra Curse

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 2.
- Hamilton A. "What Price Safety: Tetra-Ethyl Lead Reveals a Flaw in Our Defenses." *Journal of Occupational Medicine.* 1972;14(2):98–100.

- Hurt RD, Robertson CR. "Prying Open the Door to the Tobacco Industry's Secrets About Nicotine: The Minnesota Tobacco Trial." *JAMA.* 1998;280(13):1173–1181.
- Kahneman D, Tversky A. "Judgment Under Uncertainty: Heuristics and Biases." *Science.* 1974;185(4157):1124–1131.
- Rosner D, Markowitz G. "A 'Gift of God'? The Public Health Controversy over Leaded Gasoline during the 1920s." *American Journal of Public Health.* 1985;75(4):344–352.

Video:

- Ariely D. "Are We in Control of Our Own Decisions?" TED Talk, 2008.

Class 3: The Pathway to Progress

Discussion Questions:

- What are the strengths and weaknesses of randomized controlled trials? What kinds of questions are they best suited to ask?
- What should be our standard for accepting imperfect evidence? How should we balance rigor, timeliness, feasibility, and equity when deciding whether the evidence is "good enough" to act?
- Where on the health impact pyramid are our current investments concentrated, and what are the trade-offs of shifting efforts up or down the pyramid?
- Is the concept of a technical package relevant for all health problems? What are its strengths and weaknesses?

Case Study: Sudden Infant Death Syndrome (SIDS)

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 3.
- Cartwright N, Hardie J. *Evidence-Based Policy: A Practical Guide to Doing It Better.* Oxford University Press, 2012: Chapters 1–2.
- Deaton A, Cartwright N. "Understanding and Misunderstanding Randomized Controlled Trials." *Social Science & Medicine.* 2018;210:2–21.
- Frieden TR. "A Framework for Public Health Action: The Health Impact Pyramid." *American Journal of Public Health.* 2010;100(4):590–595.
- Frieden TR. "Evidence for Health Decision Making—Beyond Randomized, Controlled Trials." *New England Journal of Medicine.* 2017;377(5):465–475.
- Mitchell EA, et al. "Results from the First Year of the New Zealand Cot Death Study." *New Zealand Medical Journal.* 1991;104(906):71–76.

Unit 2: Believe in a Healthy Future

Class 4: The Illusion of Inevitability

Discussion Questions:

- What psychological, cultural, and political forces sustain the "illusion of inevitability"?
- Who benefits when preventable suffering is seen as unavoidable?
- How do narratives of past success change what people believe is achievable?
- The chapter argues that optimism is a strategic choice. Is this realistic?

Case Study: Tuberculosis in India

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 4.
- Rosling H, Rosling O, Rönnlund AR. *Factfulness: Ten Reasons We're Wrong About the World—and Why Things Are Better Than You Think.* Flatiron Books, 2018: Chapters 1, 2, and 11.
- Sharot T. "The Optimism Bias." *Current Biology.* 2011;21(23):R941–945.

Unit 3: Create

Class 5: Organize for Impact

Discussion Questions:

- What would it take to make Quadrant II work (important, not urgent) receive a larger portion of the time and energy of individuals and teams?
- The chapter argues that leaders are shaped by their institutions as much as they shape them. If that's true, what are the implications for how we think about public health leadership?
- What did the Lagos Ebola response get right organizationally that other responses in the same epidemic got wrong?

Case Study: Ebola in Lagos: Organization as Intervention

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 5.
- Covey SR. *The 7 Habits of Highly Effective People.* Free Press, 1989: Part I, Part II, and Annex B.
- Edmondson AC. "Psychological Safety and Learning Behavior in Work Teams." *Administrative Science Quarterly.* 1999;44(2):350–383.
- Lencioni P. *The Five Dysfunctions of a Team: A Leadership Fable.* Jossey-Bass, 2002.
- Shuaib F, et al. "Ebola Virus Disease Outbreak—Nigeria, July–September 2014." *Morbidity and Mortality Weekly Report.* 2014;63(39):867–872.

Class 6: Simple, Scalable Solutions

Discussion Questions:

- Why do some programs that are effective in small pilots fail when they are expanded to larger populations or new settings?
- What does it mean to design a program "for scale" from the beginning?
- How should public health teams balance the desire for tailored, complex interventions with the need for standardized, easy-to-implement approaches?
- Pritchett and Woolcock argue that programs fail when they are designed for institutional capacity that doesn't exist. How should that shape the way we design "simple, scalable" public health interventions, and what does that imply about how to apply the concepts of Chapter 6?

Case Study: Styblo HEARTS

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 6.
- Moran AE, Gupta R. "Implementation of Global Hearts Hypertension Control Programs in 32 Low- and Middle-Income Countries." *Journal of the American College of Cardiology.* 2023;82(19):1868–1884.
- Pritchett L, Woolcock M. "Solutions When the Solution Is the Problem: Arraying the Disarray in Development." *World Development.* 2004;32(2):191–212.

Class 7: Principles of Communication

Discussion Questions:

- How do we communicate to change behavior? Discuss a recent successful unsuccessful communication effort.
- What interventions can build – or undermine – trust before a crisis?
- When a health communication effort fails, how can we tell whether the problem was the message itself, the messenger delivering it, or the audience it was aimed at?
- The chapter asserts that communication must be integral to programs, not an extension of them. Choose one public health challenge or program and discuss what this implies for planning, staffing, implementation, and assessment.
- Chapter 7 doesn't discuss misinformation extensively. Are classical principles of effective communication relevant in an era of massive misinformation?

Case Study: Ebola in West Africa

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 7.
- Bedson J, et al. "Community Engagement in Outbreak Response: Lessons from the 2014–2016 Ebola Outbreak in Sierra Leone." *BMJ Global Health.* 2020;5(8):e002145.

- CDC. "Crisis & Emergency Risk Communication (CERC) Manual." Introduction and Psychology of a Crisis. https://www.cdc.gov/cerc/php/cerc-manual/index.html.
- Lewandowsky S, van der Linden S. "Countering Misinformation and Fake News Through Inoculation and Prebunking." *European Review of Social Psychology.* 2022;32(2):348–384.
- Nyhan B, Reifler J. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior.* 2010;32(2):303–330.
- Wakefield MA, et al. "The Use of Mass Media Campaigns to Change Health Behaviour." *The Lancet.* 2010;376(9748):1261–1271.

Class 8: Progress Despite Opposition

Discussion Questions:

- Winners/losers, deciders/influencers, advocates/partners, and timing/pragmatism are four dyads discussed in the chapter. Thinking of a recent public health controversy, analyze each of the four.
- Taking that analysis, which are most likely to determine success?
- When, if ever, is it justified to use mandates in public health? What principles should we use to determine when a mandate is needed?

Case Studies: Smoke-Free New York: Politics and Strategy; Ebola Guinea: Mandates

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 8.
- Chang C, et al. "The New York City Smoke-Free Air Act: Second-hand Smoke as a Worker Health and Safety Issue." *American Journal of Industrial Medicine.* 2004;46(2):188–195.
- Greer SL, et al. "Policy, Politics and Public Health." *European Journal of Public Health.* 2017;27(Supplement 4):40–43.
- Jacobson PD, Gostin LO. "Overcoming Legal Barriers to Public Health Interventions." *JAMA.* 2009;302(2):169–171.
- Lee K, Freudenberg N. "Public Health Roles in Addressing Commercial Determinants of Health." *Annual Review of Public Health.* 2022;43:375–395.

Optional reading:

- Carpenter M. *Sweet and Deadly: How Coca-Cola Spreads Disinformation and Makes Us Sick.* The MIT Press, 2025.

Unit 4: The Formula in Practice

Class 9: Pandemics and the Global Hypertension Crisis

Discussion Questions:

- What do past pandemics reveal about where the Formula tends to break down?
- Why has the world been more willing to mobilize emergency resources for fast-moving infectious threats than for slow-moving killers like hypertension?
- Cholera has killed millions over six decades despite proven, low-cost interventions. What does this tell us about the Formula's assumptions regarding what it takes to move from evidence to action at global scale?
- Future pandemics could emerge from zoonotic spillover, laboratory accidents, or both. What can be done, now, to reduce those risks, and why isn't it being done today?

Readings:

- Frieden, Tom. *The Formula for Better Health.* The MIT Press, 2025: Chapter 10.
- Bochner AF, et al. "Implementation of the 7-1-7 Target for Detection, Notification, and Response to Public Health Threats in Five Countries: A Retrospective, Observational Study." *Lancet Global Health.* 2023;11(6):e871–879.
- Bollyky TJ, et al. "Pandemic Preparedness and COVID-19: An Exploratory Analysis of Infection and Fatality Rates." *The Lancet.* 2022;399(10334):1489–1512.
- Frieden TR, Bloomberg MR. "Saving an Additional 100 Million Lives." *The Lancet.* 2018;391(10121):709–712.
- Frieden TR, et al. "7-1-7: An Organising Principle, Target, and Accountability Metric to Make the World Safer From Pandemics." *The Lancet.* 2021;398(10300):638–640.
- Lipsitch M, Inglesby TV. "Moratorium on Research Intended to Create Novel Potential Pandemic Pathogens." *mBio.* 2014;5(6):e02366-14.
- Marani M, Katul GG, Pan WK, Parolari AJ. "Intensity and Frequency of Extreme Novel Epidemics." *Proceedings of the National Academy of Sciences.* 2021;118(35):e2105482118.
- McClelland A, Frieden TR. "Ongoing Cholera Pandemic Shows Need to Go Back to Basics for Healthier Today and Safer Tomorrow." CNN Opinion. June 1, 2023.
- Pickersgill S, et al. "Modeling Global 80-80-80 Blood Pressure Targets and Cardiovascular Outcomes." *Nature Medicine.* 2022;28(8):1693–1699.
- Sachs JD, et al. "The Lancet Commission on Lessons for the Future from the COVID-19 Pandemic." *The Lancet.* 2022;400(10359):1224–1280.

Class 10: The Formula in Action and Under Scrutiny

Part I: Stopping Tuberculosis in New York City

This session applies the complete See, Believe, Create formula to the largest outbreak of multidrug-resistant tuberculosis the United States has ever seen. Students will analyze how New York City identified the crisis, built the political will and organizational capacity to respond, and designed a program that reversed the epidemic.

Discussion Questions (Part I):

- New York City's TB crisis grew for years before the city mounted a serious response. What had to change — in surveillance, political attention, or institutional capacity — before action became possible?
- The NYC program relied on directly observed therapy, which some critics view as coercive. When is it justified to constrain individual autonomy to protect public health, and who should make that determination?
- The Frieden et al. NEJM paper describes a program that succeeded in one of the most difficult urban environments in the country. What specific features of the NYC response would be hardest to replicate in a low- or low-middle income country, and why?

Case study: Tuberculosis in New York City

Part II: Interrogating the Formula

A structured seminar dedicated to stress-testing the course framework. Students draw on the full semester's material to address:

Discussion Questions (Part II):

- Where does the Formula work best, and what populations, contexts, or health threats does it fit poorly, and why?
- Does the Formula adequately address structural determinants of health, or does it overweight individual and programmatic action?

Readings:

- Brudney K, Dobkin JF. "Resurgent Tuberculosis in New York City: Human Immunodeficiency Virus, Homelessness, and the Decline of Tuberculosis Control Programs." *American Review of Respiratory Disease.* 1991;144(4):745–749.
- Frieden TR, Brudney KF, Harries AD. "Global Tuberculosis: Perspectives, Prospects, and Priorities." *JAMA.* 2014;312(14):1393–1394.
- Frieden TR, et al. "Tuberculosis in New York City—Turning the Tide." *New England Journal of Medicine.* 1995;333(4):229–233.
- Marmot M. "Social Determinants of Health Inequalities." *The Lancet.* 2005;365(9464):1099–1104.

No additional new readings for Part II. Students draw on the full semester's material.

Classes 11–12: Capstone Presentations

Each student or pair delivers a 20-minute presentation followed by 10 minutes of Q&A. Written papers due on the first day of Week 11.

The Formula for Better Health — Tom Frieden, MD, MPH (MIT Press, 2025)