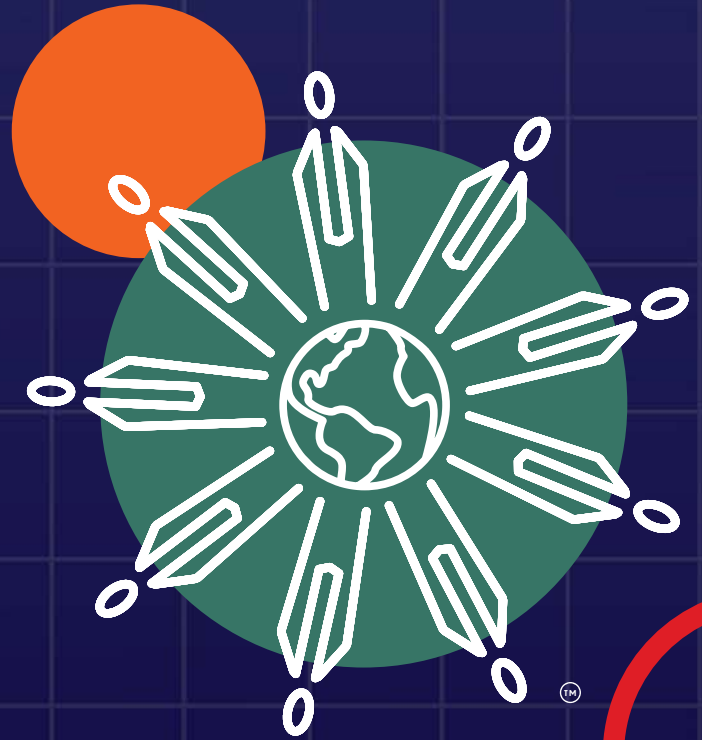


LEARNING GUIDE



BECOMING BETTER ANCESTORS[™]

9 Lessons from Global Health
to Change the World



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HOW TO USE THIS LEARNING GUIDE

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.

How to Use This Learning Guide

The *Becoming Better Ancestors™: 9 Lessons to Change the World* curriculum includes a program introduction, followed by 9 lessons, each focused on one of the 9 Lessons to Change the World:

LESSON 1:

**THIS IS A CAUSE
& EFFECT WORLD.**

LESSON 2:

**KNOW, SHARE,
& ACT ON THE TRUTH.**

LESSON 3:

**COALITIONS
ARE ESSENTIAL.**

LESSON 4:

AVOID CERTAINTY.

LESSON 5:

**BUILD IN
EVALUATION
& IMPROVEMENT.**

LESSON 6:

**RESPECT
THE CULTURE.
CULTURE MATTERS.**

LESSON 7:

**SEEK STRONG
LEADERSHIP &
MANAGEMENT.**

LESSON 8:

**MOBILIZE
POLITICAL
WILL.**

LESSON 9:

**MOVE TOWARDS
GLOBAL HEALTH
EQUITY.**

Each lesson video consists of several short parts focused on what can be learned from smallpox eradication and how that knowledge can be applied to current and future public health challenges. These parts include interviews with key global health leaders, as well as discussions about critical health issues and how they were addressed.

ICONS

Throughout the Becoming Better Ancestors™ Learning Guide, please utilize these icons to quickly find the section or information you are looking for:



THE BIG IDEAS

High level summaries of the main ideas in the lesson.



LESSON GOALS

Lesson Goals list what you will learn in each part.



REFLECTION

Review the questions in these sections and think about how they are relevant to your life and work. Jot down answers to the questions in the space provided.



ADDITIONAL RESOURCES & DEEPER DIVES

These sections list information for further research and reference.

How to Use The Lessons

Lessons can be completed individually or viewed and discussed as a group. Suggested audiences and settings for **The Becoming Better Ancestors™: 9 Lessons to Change the World** include:

Audiences:

- Community workers
- Public health, nursing, medical, business, and public policy students
- Organization leaders and future leaders

Settings:

- Classrooms with teacher/professor facilitated discussions
- Online study
- Meetings of non-profit organizations including civic, charitable, and religious organizations
- And many more...

The future is dependent on what we do and how well we use our resources, the discoveries we make, and how we plan for everyone, even those yet unborn. The lessons learned from the eradication of smallpox gave us the tools—the 9 Lessons—now, we must put them to use.

The lessons embodied in this curriculum empower you to learn from the past to help you shape the future. They will inspire action for change. Applying these lessons can help YOU bring about real change in a consistent, reliable, and meaningful way.

- Go to **9lessons.org** to select the lesson you would like to view.
- Download the Learning Guide pdf for each lesson that you would like to watch.
- These lessons can be viewed in any order. Each lesson stands alone; however, to fully internalize the scope of the impact, it is best to view all 9 lessons.

- Each lesson will take approximately 45 minutes to complete. This includes watching the videos and working through the Learning Guide for the lesson.
- Review the key ideas for each lesson listed in the learning guide.
- As you watch each part, keep in mind how the discussion applies to your work. The lessons can also be applied to other professional, personal, or school challenges.
- Think about how learning about past public health experiences can help build our future.
- Use the lessons to review past challenges and consider how they might have been different knowing what you have learned.
- After reviewing each part, answer the Reflection questions, thinking about how you can apply what you learned.
- Review the glossary, additional resources, and deeper dives.
- Jot down any questions or concepts that you would like to learn more about or research.
- Email us your suggestions for improvement and for new lessons at info@9lessons.org.

The lessons listed below are organized into three groups to help you remember and use them. The lessons in **Begin Intentionally** present the foundational values that underlie successful programs. **Build Responsibly** includes lessons to build a program that can be improved as it goes and work effectively with partners. **Deliver Reliably** teaches lessons necessary for achieving program outcomes.

LESSON AND PART GUIDE

Lesson	Part	Interview with Key Health Leader
Becoming Better Ancestors Introduction	0.1 Why we need these lessons: To deal with current and future threats	Anthony Fauci Bill Foege Roger Glass Steve Luby Donald Hopkins Matshidiso Moeti Mark Rosenberg Vivian Singletary Carl Ready Larry Brilliant
	0.2 The 9 Lessons to Change the World	Bill Foege
	0.3 The power of mentoring	Melinda French Gates Matshidiso Moeti Angela Hilmers
	0.4 What I learned from my Mentors	Bill Foege

BEGIN INTENTIONALLY

1. This is a cause & effect world. If we understand the causes, we can change the effects.	1.1 Cause & effect in smallpox eradication	Bill Foege Susmita Parashar
	1.2 Story A - Early stigma of HIV/AIDS in the United States 1.2 Story B - Introduction to Guinea Worm	Helene Gayle Donald Hopkins
	1.3 Preventing road traffic injuries	Mark Rosenberg

BEGIN INTENTIONALLY

2. Know the truth. Share the truth. Act on the truth.	2.1 Knowing the truth in smallpox eradication in India.	Bill Foege Susmita Parashar
	2.2 Guinea worm in Nigeria	Donald Hopkins
	2.3 Firearm injuries in the United States	Mark Rosenberg
3. Coalitions are essential.	3.1 Coalitions in Smallpox eradication in India	Mark Rosenberg Susmita Parashar
	3.2 Formation and success of The Task Force for Child Survival and the Mectizan Donation Program	Bill Foege
	3.3 The Global Alliance for Vaccines and Immunization (GAVI)	Seth Berkley

BUILD RESPONSIBLY

4. Avoid certainty (the Achilles' heel of science).	4.1 Avoiding certainty in smallpox eradication in India	Bill Foege Susmita Parashar
	4.2 MAZA – Transportation for women in Ghana	Nana Twum-Danso
	4.3 HIV/AIDS	Jim Curran
	4.4 HIV antiretroviral medication	Matshidiso Moeti
5. Build in evaluation and continuous improvement.	5.1 The role of evaluation and continuous improvement in smallpox eradication in India	Bill Foege Susmita Parashar
	5.2 Polio surveillance	Manish Patel
	5.3 Infant mortality in Ghana	Nana Twum-Danso
	5.4 Gun violence research in the United States	Mark Rosenberg
6. Respect the culture. Culture matters.	6.1 Respecting the culture in smallpox eradication in India	Bill Foege Susmita Parashar
	6.2 Story A - Dr. Hans Rosling in Mozambique	Melinda French Gates

6. Respect the culture. Culture matters.	6.2 Story B - Changing perspectives and culture around women and girls	Helene Gayle
	6.3 Understanding the gun rights culture in the US	Mark Rosenberg

DELIVER RELIABLY

7. The best decisions are based on the best science, but the best results also require strong leadership and management.	7.1 Role of management in Smallpox eradication in India – Tata Companies	Larry Brilliant Girija Brilliant
	7.2 An innovative use of drones to deliver vaccines	Seth Berkley
	7.3 Story A - Getting medication to those who need it and managing volunteers 7.3 Story B - Immunizations in Nepal	Steve Stirling Sameer Dixit

8. Mobilize political will, because with it, anything is possible; without it, nothing is.	8.1 Mobilizing political will in smallpox eradication in India	Bill Foege Susmita Parashar
	8.2 Female genital cutting in Senegal	Melinda French Gates
	8.3 Zika in Latin America	Angela Hilmers

DELIVER RELIABLY

9. The best solutions move us closer to global health equity.	9.1 Smallpox eradication was a giant step toward global health equity	Bill Foege Susmita Parashar
	9.2 MDR TB treatment/ preferential options for the poor	Jim Kim Mark Rosenberg
	9.3 Story A - Access to Novartis medicines	Vas Narasimhan
	9.3 Story B - The root cause of social inequities	David Satcher

Acknowledgements

We stand on the shoulders of giants – in addition to the individuals mentioned, there are many very important additional contributors. We do not think history will prove these are the only 9 Lessons; we believe these are important to highlight, but in a world that is constantly changing, we will continue to learn, and more lessons may be added.

INTRODUCTION TO BECOMING BETTER ANCESTORS™: 9 LESSONS TO CHANGE THE WORLD

INTRODUCTION

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



INTRODUCTION TO THE NINE LESSONS FOR BECOMING BETTER ANCESTORS™

This sets the stage for the importance of our Becoming Better Ancestors™. The introduction features key leaders outlining current and future threats to global health and our world. It argues that although the threats facing the world are considerable and seem insurmountable, there is reason for hope. The future is dependent on the discoveries we make, how well we plan—taking account of everyone, even those yet unborn—how well we use our resources, and what we do to deliver the results. The lessons learned from the eradication of smallpox gave us the tools—the 9 Lessons—now, we must put them to use.



THE BIG IDEAS

- These ideas are so simple that some people might think they are so obvious that everyone already knows them. But simple measures are often ignored with disastrous consequences.
- Together these nine lessons suggest an approach to developing, applying, and improving the ways in which we approach large-scale health problems.
- Using a checklist of key learnings from these lessons can help develop a plan for solving the problem you want to focus on.
- These nine lessons are only the beginning. More lessons may be added over time—perhaps by you.

“It is relevant and even part of wisdom to ask not only are we being good citizens of the world today, but are we being good ancestors.”

— DR. JONAS SALK —



LESSON GOALS

In this lesson you will learn:

- Why **Nine Lessons for Becoming Better Ancestors™** was created.
- How the nine lessons can help us identify and act on future threats to society.
- How mentorship enhances the skills and increases confidence for those working in public health.

Summaries and Reflections for Each Part

PART 0.1 WHY WE NEED THESE LESSONS - TO DEAL WITH CURRENT AND FUTURE THREATS.

Zainab Salbi, founder of Women for Women International



REFLECTION

In this part, Zainab Salbi, founder of Women for Women International, introduces the 9 lessons learned from smallpox eradication and how they can affect future threats to our world.

- What global public health threats do you worry about?
- How might those threats affect your life?
- How do you see your role in changing the future trajectory?

“We think that we will become ancestors some time far away in the future, but the future is already coming, and coming faster than we think, so we had better start preparing for it right now.”

— DR. MARK ROSENBERG —

“Today is yesterday’s future.”

DR. WILLIAM FOEGE

PART 0.2 THE 9 LESSONS TO CHANGE THE WORLD

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation



REFLECTION

This part introduces Dr. Foege and his role in smallpox eradication.

- What does it mean to be a better ancestor?
- How can learning about past public health experiences help our future?
- At first impression, how do you think the 9 Lessons might be helpful in your work or personal life?
- Who else might benefit from this program?

“What you leave behind is not what is engraved in stone monuments, but what is woven into the lives of others.”

PERICLES

PART 0.3 THE POWER OF MENTORING

*Dr. Angela Hilmers, Director of Strategic and Technical Initiatives,
TEPHINET, The Task Force for Global Health*

Melinda French Gates, Co-chair of the Bill & Melinda Gates Foundation

Dr. Matshidiso Moeti, WHO Regional Director for Africa



REFLECTION

In this part, these international leaders discuss what can be learned from global health experts' stories and how mentors can be invaluable for all of us.

- In what ways would mentoring be valuable to your learning journey?
As a mentor? As a mentee?
 - Who has inspired you in the past? How?
-

PART 0.4 WHAT I LEARNED FROM MY MENTORS

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation



REFLECTION

In this part, Dr. Foege discusses some of his mentors and how strong leadership and continuous learning helped create actions to eradicate smallpox.

- Mentors don't just happen. A good mentoring relationship requires actions and commitment by both mentor and mentee. What steps can you take to develop this kind of relationship?



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- Read more about smallpox eradication in this Global Health Delivery Project case study: "[Smallpox Eradication: a blueprint for future public health strategy](#)".
- [Click here to access teaching resources.](#)

Use this space to note any questions you might have or things you want to research further.

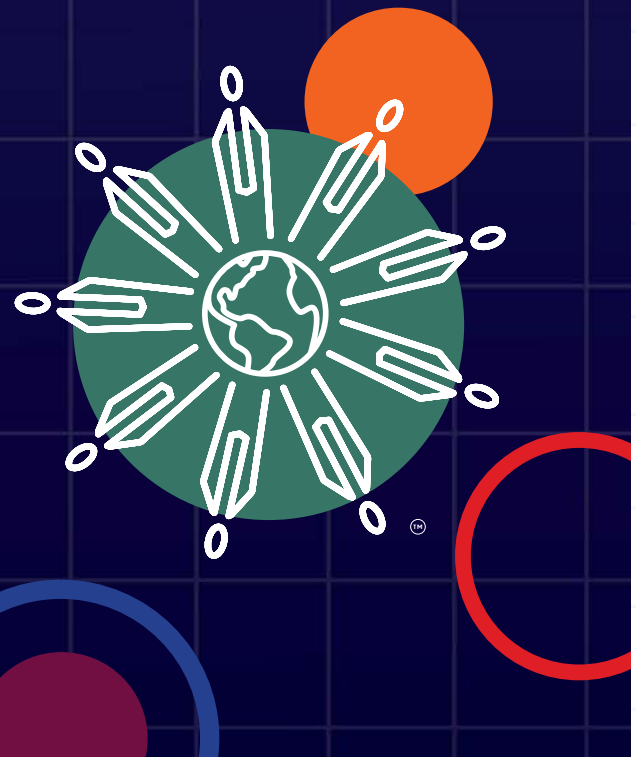
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 1: THIS IS A CAUSE AND EFFECT WORLD. IF WE UNDERSTAND THE CAUSES, WE CAN CHANGE THE EFFECTS.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



1

LESSON 1: THIS IS A CAUSE AND EFFECT WORLD. IF WE UNDERSTAND THE CAUSES, WE CAN CHANGE THE EFFECTS.

Things happen because something causes them to happen. If we understand the causes of disease—or, for that matter, any problem—we can change the effects, or outcomes. For every effect, there is at least one underlying cause. We use science to help us understand the causes and the effects and how they are connected.



THE BIG IDEAS

- This is a cause and effect world. If we understand the causes, we can change the effects.
- Scientific methods help us to understand the causes and effects. This understanding shapes the strategy and intervention to change the effects.
- Understanding the problem is usually not as simple as one might think. Time invested to truly understand the problem can pay big dividends.
- There are usually four questions that public health asks about a problem:
 1. What is the problem: who, when, where, and how were people getting sick or hurt?
 2. What are the causes?
 3. What works to prevent this problem? What is the evidence that these interventions are effective?
 4. How do you do it? How do you scale the intervention up? How do you translate it into policies and legislation?
- Knowing that we can understand the causes and change the effects gives us reason to believe we can change things, and change them for the better. It gives us a reason to be optimistic.

“If I had an hour to solve a very important and pressing problem, I’d spend 55 minutes working to understand the problem and 5 minutes to come up with the solution.”

— ATTRIBUTED TO ALBERT EINSTEIN —



LESSON GOALS

In this lesson you will learn:

- How the scientific method can help you understand the causes and effects for the problems you want to tackle
- Examples of cause and effect in smallpox, HIV, Guinea worm and road traffic injuries
- How these lessons may apply to your life and work

Summaries and Reflections for Each Part

PART 1.1 CAUSE AND EFFECT: INTRODUCTION TO SMALLPOX ERADICATION

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

STORY A

SITUATION: The risk of smallpox was accepted as just an unfortunate part of life. Getting sick was a person's fate.

CHALLENGE: But in the late 1700s, Dr. Edward Jenner saw things differently and applied a "cause and effect" mindset. After years of observation, he was convinced that having cowpox protected people from contracting smallpox.

SOLUTION: Therefore, in 1796, Jenner gave the first cowpox vaccine to a young boy named James Phipps and demonstrated that the vaccination protected Phipps from getting sick when he was exposed to smallpox. Thus, he demonstrated that smallpox was not just an act of fate but a disease that could be understood and prevented by understanding the cause and effect.

“The history of science is the gradual realization that things do not happen in an arbitrary manner.”

STEPHEN HAWKING

STORY B

SITUATION: In 1967, long after smallpox had been eradicated in most high- and middle-income countries, it was still running rampant in India.

CHALLENGE: But despite several years of mass immunization campaigns, smallpox was still affecting the poorest and most vulnerable people in rural villages, continuing to spread in the poorest areas of the country.

SOLUTION: Therefore, India initiated an unprecedented plan to find all cases of smallpox (surveillance) and then focus efforts only on the villages with active cases, vaccinating everyone within a given radius of a case (containment). This plan showed that by understanding the cause—by understanding smallpox, how it spread and how it could be prevented—the strategy of surveillance and containment could change the effect, and in a spectacular way.



REFLECTION

In this part, Dr. Parashar talked about how understanding the cause of smallpox could help reduce and prevent its spread.

Thinking about a problem or situation in your own work...

- How could a better understanding of the problem help you in thinking through the solution?
- What do you see as next steps to help you understand the problem or cause?
- Do you see any problems that may have arisen because the cause of this problem was not understood?

PART 1.2 CAUSE AND EFFECT: EARLY STIGMA OF HIV/AIDS IN THE UNITED STATES

Dr. Helene Gayle, President, Chicago Community Trust

STORY A

SITUATION: In the early days of HIV/AIDS, AIDS was a mysterious disease. The cause of AIDS was unknown, and many blamed it on the most marginalized groups.

CHALLENGE: But, without knowing that the disease was caused by a virus, it was easy to stigmatize, isolate and blame affected groups. The early approach towards understanding AIDS focused on who was getting infected, rather than the cause and effect of the disease. Epidemiologists saw that AIDS was affecting hemophiliacs, heroin addicts, homosexuals, and Haitians (the 4Hs of HIV) which biased the way people viewed the disease and the populations it first impacted. Infection did not seem to follow logic.

SOLUTION: Therefore, when it was discovered that AIDS was transmitted by a virus, it became easier to attack the disease itself rather than blame these stigmatized groups. This allowed us to look for better ways of treating and preventing the spread of HIV infection.



REFLECTION

In this part, Dr. Gayle discussed how not knowing the cause of AIDS negatively impacted certain populations, labeling them inappropriately and isolating them.

- What were some of the consequences of not knowing the cause of HIV/AIDS in the United States during the early years of the disease?
- How could a better understanding of the problem have helped with prevention efforts?
- How might understanding the true cause of HIV/AIDS have made a difference in the history of HIV/AIDS in the United States and around the world?
- Think of an example from your own work where not knowing the cause of a problem delayed prevention and treatment efforts and took an unnecessarily large toll on the people affected by the problem.
- What can you do to learn more about the causes of the issue you are working on?

“It may have been possible in the past for things to have happened in isolation, but from this time forth, the world must be seen as an organic whole, everything affects everything.”

POLYBIUS, GREEK HISTORIAN 146 BC

PART 1.2 - CAUSE AND EFFECT: INTRODUCTION TO GUINEA WORM

Dr. Donald Hopkins, Special Advisor, The Carter Center

STORY B

SITUATION: Guinea worm is a horrible disease affecting some of the poorest and most remote populations.

CHALLENGE: But the year-long delay between drinking unclean water and the appearance of symptoms, kept vulnerable people from realizing that drinking water from contaminated ponds was the source of their illness.

SOLUTION: Therefore, to demonstrate cause and effect, communities were asked to hold a jar of water from their pond up to the light to see the tiny water fleas swimming around in the water. This helped people to make the connection between drinking contaminated water and becoming infected by the parasite. Making this connection between cause and effect led to changes in their behavior that could protect them.



REFLECTION

In this part, Dr. Hopkins talks about how difficult it was to see cause and effect and make changes, when there was a great time lag before the effect was seen.

- In your own life, is there a situation where you are not able to clearly see the long-term effects?
- What steps could you take to better identify long term outcomes and connect them to the cause?
- Describe an experience where a better understanding of the cause would have helped develop a better resolution.

“Science is common sense at its best.”

—THOMAS HUXLEY—

PART 1.3 CAUSE AND EFFECT: PREVENTING ROAD TRAFFIC INJURIES

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

SITUATION: Too many people were dying from automobile crashes on highways.

CHALLENGE: But people considered these crashes to be “accidents,” or acts of fate for which we could not know the cause. They argued that if we could not know the cause, we could not prevent them. People were not thinking of cause and effect.

SOLUTION: Therefore, the US government undertook a massive research project to identify the causes and ways to prevent traffic injuries and deaths. They discovered ways to redesign cars and roadways and change driver behavior, saving hundreds of thousands of lives.



REFLECTION

In this lesson, Dr. Rosenberg talks about how discovering the underlying causes of road traffic crashes helped to develop real solutions to prevent deaths.

In your personal or professional life...

- What issue might need more research to determine the cause, i.e., why it is occurring?
- What are the research questions you would want to answer?
- Who could you reach out to for assistance?
- How would knowing the causes of a problem you are working on, better equip you to solve it?



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- Read more about smallpox eradication in this Global Health Delivery Project case study: "[Smallpox Eradication: a blueprint for future public health strategy](#)".
- Click here to access [teaching resources](#).

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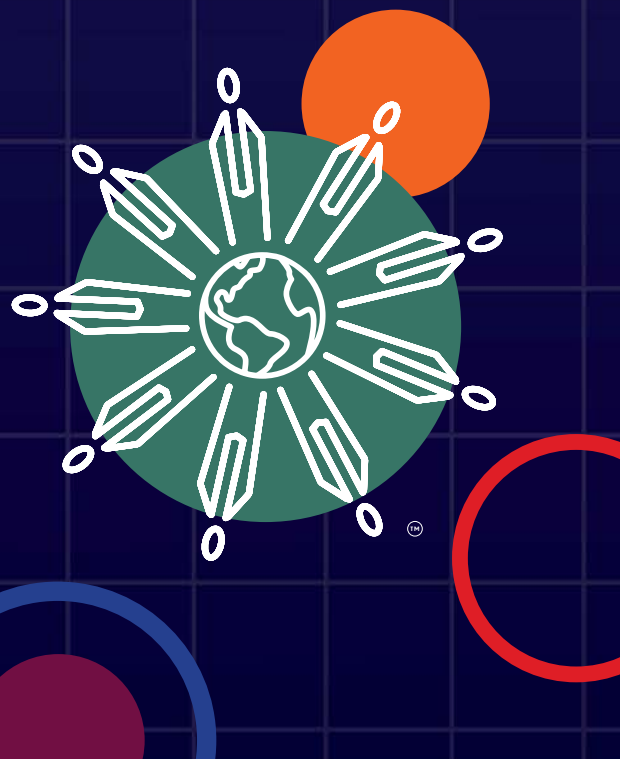
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 2: KNOW THE TRUTH. SHARE THE TRUTH. ACT ON THE TRUTH.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



2 LESSON 2: KNOW THE TRUTH. SHARE THE TRUTH. ACT ON THE TRUTH.

When facing any challenge, uncovering, and understanding the actual truth is critical. Without knowing the truth, we cannot solve the problem or respond effectively. Knowing the truth often means knowing how a disease is distributed in a population. We use epidemiology to examine and understand the patterns of disease, injury, or another problem in a population. We learn the truth by gathering the evidence and collecting and analyzing data. Communicating the truth means being open and transparent with our findings. Finally, the most important step is acting on the truth; taking the steps that the data indicate will prevent or address the problem.

“Silence becomes cowardice when occasion demands speaking out the whole truth and acting accordingly.”

— MAHATMA GANDHI —



THE BIG IDEAS

- When working on disease outbreaks, knowing the truth often means “know your enemy”—how many cases are there, where are they, who are the people getting sick, how is the disease transmitted, and are the numbers going up or down?
- What else might we mean by the “truth”? What might “the truth” mean for problems that are not infectious diseases?
- Sometimes the truth is hard to detect, even when you are actively looking for it.
- It is also important to know the truth about the causes of the problem and what works to prevent or treat it.
- Research is often required to fully understand the causes of a problem and to know what would work to prevent the problem. Usually, the only way to know what works, is to test it out, with scientific research.
- The truth is often revealed in a stepwise fashion, so we must keep learning and keep improving by incorporating what we learn.
- It takes courage to speak the truth. It is often difficult to accept the truth, especially if it challenges popular assumptions about the cause or distribution of a disease or health problem, or if it threatens the interests of a particular group.
- The world is constantly changing. Sometimes the truth shifts, such as when a virus mutates. What is true one day may not be true the next day.
- What we may think is true one day, may not be true the next day after we learn more information (i.e., the data shows us different information and we learn more).
- Knowing the truth isn’t enough; the truth needs to be shared and acted on.



LESSON GOALS

In this lesson you will learn:

- How knowing the truth will help improve action
- How truth is related to cause and effect
- The consequences of not knowing, sharing, or acting on the truth
- Examples of truths that were learned from smallpox, HIV/AIDS, Guinea worm and gun injuries
- How these lessons may apply to your life and work

“Science is not truth. Science is finding the truth. When science changes its opinion, it didn’t lie to you. It learned more.”

— MOHAMAD SAFA —

Summaries and Reflections for Each Part

PART 2.1 KNOW THE TRUTH. SHARE THE TRUTH. ACT ON THE TRUTH: SMALLPOX IN INDIA

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: To apply the surveillance and containment strategy, it was necessary to know where the smallpox virus was, which villages had active cases of smallpox. The struggle against smallpox could not be won without knowing where the enemy was and what it was doing.

CHALLENGE: But India did not have accurate surveillance data. Many villages with active cases had not been reported.

SOLUTION: Therefore, India mobilized large numbers of people to actively search for cases of smallpox. These active searches revealed rates of smallpox much higher than previously recognized and showed just where the virus was. Although some officials were initially reluctant to accept numbers that could be interpreted as showing the problem was getting worse, knowing just where the virus was allowed the successful application of the containment strategy. The virus could no longer hide, and the “enemy” could quickly be defeated.



REFLECTION

In this part, Dr. Foege and Dr. Parashar talked about how understanding the truth about the actual number of cases and where the virus was spreading helped to demonstrate the effectiveness of the surveillance and containment strategy for eradicating the disease.

Thinking about a problem or situation in your own work...

- What are some ways you could dig deeper into a situation to help you see the truth about what is occurring?
- Is there a situation where you thought you knew the truth about why something was happening, and you later found there was more to the story?

PART 2.2: KNOW THE TRUTH: GUINEA WORM IN NIGERIA

Dr. Donald Hopkins, Special Advisor, The Carter Center

SITUATION: While Guinea worm was widespread in Nigeria and Ghana, the leaders thought Guinea worm impacted only a small number of people and for this reason they were not motivated to do anything to solve the problem.

CHALLENGE: But what government leaders thought were a few hundred cases turned out to be over 650,000 cases.

SOLUTION: Therefore, when they knew the truth, they understood how important it was to do something about it, and they resolved to take action.



REFLECTION

In this part, Dr. Hopkins discussed how knowing the entire truth about Guinea Worm—not only how many people were infected, but the medical, economic, and social costs of each infection—was very important. Pointing out the extent to which it caused children to miss school and interfered with the ability of farmers to work, led to leaders to reassess the urgency and importance of eradicating this disease. Sharing the truth was important for creating actions to change behaviors.

- Why do you think “knowing the truth” was not enough with Guinea worm?
- Think of a recent issue in public health when knowing and sharing the truth could have helped change behaviors to improve the situation.
- Thinking about your own work, what actions can be initiated if more truths are shared?
- Why is knowing the truth about the cause of a disease important?

“Integrity is telling myself the truth. And honesty is telling the truth to other people.”

SPENCER JOHNSON

PART 2.3 KNOW THE TRUTH: GUN INJURIES IN THE UNITED STATES

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

SITUATION: People were looking for something to blame for an increase in gun violence and they focused on violent video games, movies, and music that seems to extol violence.

CHALLENGE: But people did not really know which factors were causally associated with violent behaviors.

SOLUTION: Therefore, when people started to do research on the role of various risk factors, they found that witnessing violence in the home and in the community, substance abuse, and incarceration of family members was having a much larger impact on children, resulting in a wide range of chronic diseases, and sometimes leading them to become perpetrators or even victims of violence. Scientists were then able to devise interventions that focused on reducing intimate partner violence and violence of all sorts in the home, reducing the exposure of children to a whole range of adverse childhood experiences.



REFLECTION

In this part, Dr. Rosenberg talks about how research that uncovered the truth about causes of violence helped to develop effective violence prevention measures.

- How does scientifically looking deeper into an issue help uncover truth?
- In your personal or professional life, think of a situation where looking more closely at the data for whole communities or populations can help you see patterns and find additional truths.
- How would you share your new findings?
- What challenges might you find in sharing and acting upon the truth?



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary

Deeper Dives

- Exemplars In Global Health research has highlighted surveillance as a critical factor in the reduction of child mortality around the world:
 - In Senegal, improvements in data, research and health surveillance capacity were essential for both vaccination rollout as well as malaria prevention. Learn more: [Senegal Overview](#).
 - In Bangladesh, strong local research institutions supported use of demographic surveillance data to inform data-based decision-making. Learn more: [Bangladesh Overview](#).
- Exemplars In Global Health research has explored best practices
- COVID-19 testing and surveillance in on DRC, Nigeria, Senegal, Uganda. Learn more from what worked well in these four countries: [Testing & Surveillance](#).
- A number of existing digital tools have been adapted and scaled to respond to the COVID-19 pandemic. Learn more from this review, including examples from India and Nigeria on adaptation of surveillance tools: [Digital Health Tools](#).
- Community-driven surveillance platforms have shown promise in significantly accelerating the detection of disease. Learn more from this case study about surveillance technology in Thailand, Cambodia, and Tanzania: [Surveillance technology in Thailand, Cambodia, and Tanzania: Case Study from Ending Pandemics](#).
- Uganda managed the Ebola crisis through multisectoral coordination and preparedness planning, clear communication with neighboring countries, and surveillance systems to support early detection. Learn more in this Q&A with Exemplars research partners: [How Uganda stopped Ebola at its border and inspired a new health tool](#).

- **Read more about smallpox eradication in this Global Health Delivery Project case study: ["Smallpox Eradication: a blueprint for future public health strategy"](#).**
- **Click here to access [teaching resources](#).**

Use this space to note any questions you might have or things you want to research further.

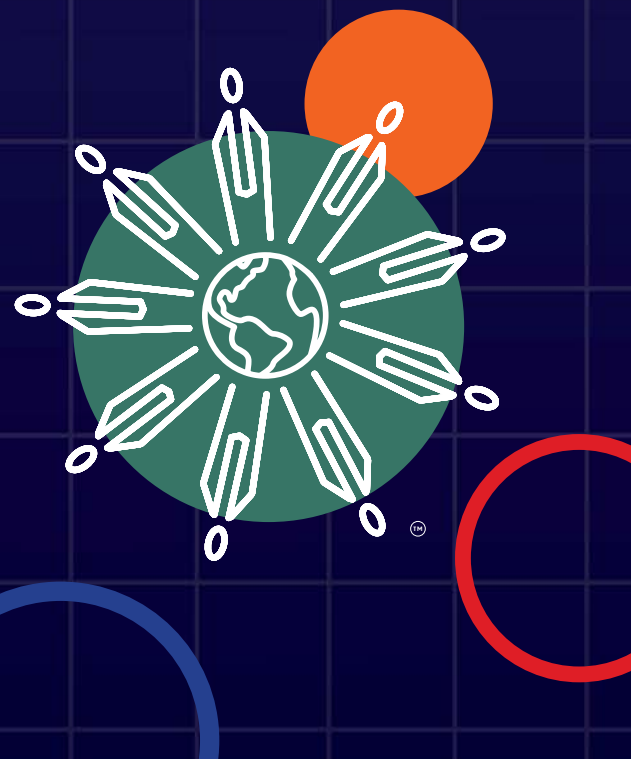
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 3: COALITIONS ARE ESSENTIAL.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



3 LESSON 3: COALITIONS ARE ESSENTIAL.

Neither a single person nor a single organization alone can solve any of the large-scale problems we face today. By working together in a coalition, we can have a greater impact. Collaboration is not easy. But by mastering the ability to create and maintain coalitions we can unlock tremendous potential for change.



THE BIG IDEAS

- You can't do it alone.
- The skills and qualities required to build a coalition and make it successful are not innate. But they can be learned and practiced.
- An essential quality for a good leader is the ability to lead a successful coalition.
- Social capital and trust are essential for effective collaboration. Coalitions proceed at the speed of trust.
- A successful coalition requires 5 key elements:
 1. Shared goal,
 2. Strategy for reaching that goal,
 3. Appropriate structure,
 4. Well-defined membership, and
 5. Good management.

**“No man ever makes it by himself...
In our fickle moments we may feel that
we are what we are by our own achievements,
but in our sober moments we know deep down
in ourselves that we did not make it alone
ourselves. This is another way of saying:
‘All that we are, we owe to others’.”**

DR. MARTIN LUTHER KING JR.



LESSON GOALS

In this lesson you will learn:

- The benefits of forming coalitions
- Barriers to successful coalitions
- Why having a shared goal is critical to implementation
- The 5 key elements of a successful coalition – shared goal, strategy, structure, membership, and management

Summaries and Reflections for Each Part

PART 3.1 COALITIONS ARE ESSENTIAL: SMALLPOX IN INDIA

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: : Implementing the smallpox surveillance and containment strategy required massive resources, commitment, and coordination.

CHALLENGE: But moving from a traditional strategy, used for over a century and a half with clearly defined roles for every participant, to a new strategy simply seemed too labor intensive and impossible. This required mobilizing and coordinating hundreds of thousands of implementers with a gradual increase in the number of people involved.

SOLUTION: Therefore, coalitions were formed at the village, regional, state, national, and international levels to orchestrate a massive effort with collaboration at every level.



REFLECTION

In this part, Dr. Rosenberg and Dr. Parashar discuss the importance of building coalitions with multiple organizations and villages to enhance surveillance systems and implement containment. The 5 key elements of a successful coalition are also discussed.

- Why was the coalition so important in smallpox eradication?
- How do you think having a shared goal helped?
- Which of the 5 key elements do you think is most challenging? Why?
- What can you do to overcome the challenges?
- In your own work, what organizations could you partner with to achieve your goals?
- Ask yourself the following questions:
 - Who can help you achieve success?
 - How will you manage meetings and programs effectively and efficiently?
 - How can you build trust?
 - How will you manage the distribution of work?

“If you want to go fast, go alone; if you want to go far, go together.”

OLD AFRICAN SAYING

PART 3.2 COALITIONS ARE ESSENTIAL: FORMATION AND SUCCESS OF THE TASK FORCE FOR CHILD SURVIVAL AND THE MECTIZAN DONATION PROGRAM

Dr. Bill Foege, Senior Advisor, The Bill & Melinda Gates Foundation

SITUATION: Because of the experience with immunization and the successful eradication of smallpox, Dr. Jonas Salk and Robert McNamara, past World Bank president, asked, “Why can’t the world be vaccinated the way the United States is?” There were good vaccines but poor global coverage.

CHALLENGE: But the major agencies responsible for childhood immunizations were competing rather than collaborating and the immunization level was stuck at 20%.

SOLUTION: Therefore, the heads of the World Bank, UNICEF, WHO, Rockefeller Foundation, and UNDP formed the Task Force for Child Survival. Their success in creating an effective coalition contributed to increasing childhood immunization rates from 20% to 80% worldwide in six years. By 1990, 80% of children in low- and middle-income countries had received at least one vaccine. The success in forming a coalition for child survival led to the birth of a pharmaco-philanthropy with Merck and the creation of the Mectizan Donation Program. The program was housed at the Task Force for Child Survival to address river blindness. The Mectizan Donation Program has dramatically reduced the prevalence of river blindness to where elimination is now the goal. The Mectizan Donation Program’s success encouraged other organizations to embrace elimination campaigns for trachoma, parasitic infections in children, leprosy and lymphatic filariasis or elephantiasis.



REFLECTION

In this part, Dr. Foege talks about how The Task Force for Child Survival was formed and how the Task Force formed a coalition with a pharmaceutical partner to help distribute the drug to cure River Blindness.

- How did success in eradicating smallpox inspire several competing multilateral UN organizations to work together?
- What do you think WHO, UNICEF and the World Bank were competing for?
- What were the secrets of the success of The Task Force for Child Survival and the members of its coalition?
- Why do you think various organizations initially rejected the idea of distributing the Merck-donated Mectizan?
- In what ways were the organizations constrained?
- Why do you think the coalition between the Task Force for Child Survival and Merck was so successful?
- Would you have taken a different approach to distributing the drug?
- Draft a shared goal that could be used in this coalition.

PART 3.3 COALITIONS ARE ESSENTIAL: THE GLOBAL ALLIANCE FOR VACCINES AND IMMUNIZATION (GAVI)

Dr. Seth Berkley, CEO, GAVI, The Vaccine Alliance

SITUATION: Many different organizations were involved with immunizations brought together by the Task Force for Child Survival starting in 1984.

CHALLENGE: But this coalition fell apart in the 1990s when the agency heads, who had been effective collaborators, turned over. They had to rebuild the coalition that had worked under the auspices of The Task Force.

SOLUTION: Therefore, GAVI formed a new coalition to deliver immunizations bringing together all the major institutions and the manufacturers. It also had contributions of pharmaceuticals and money.

“We need to pursue interdependence with
the same zeal as we pursue self-reliance.”

MAHATMA GANDHI



REFLECTION

In this part, Dr. Berkley discusses how GAVI was formed to bring together partners to form new coalitions that would help accelerate vaccine supply distribution around the world.

- Why were the agencies competing?
- Which of the 5 key elements do you think were the most challenging for GAVI? Why?
- Why do most coalitions fail?
- What problems would you anticipate if you were forming a coalition?



ADDITIONAL RESOURCES & DEEPER DIVES

Additional Resources:

- 9lessons.org/glossary
- [Real Collaboration: What It Takes for Global Health to Succeed](#)
– (Rosenberg, M., Hayes, E. & Neill, N.W., 2010)
- **Real Collaboration Toolkits**
 - [The First Mile Toolkit](#)
 - [The Journey: Management Toolkit](#)
 - [The Journey: Leadership Toolkit](#)
 - [The Last Mile Toolkit](#)
 - [The Donor Toolkit](#)
- **Dr. Mark Rosenberg reflects on what coalitions need to be strong and effective: See [The 7 Cs: lessons for effective coalitions - and strong marriages](#)**
 1. Culture
 2. Conflicting Goals
 3. Confusion
 4. Control
 5. Capabilities
 6. Competition
 7. Costs

Deeper Dives:

- Read more about smallpox eradication in this Global Health Delivery Project case study: ["Smallpox Eradication: a blueprint for future public health strategy"](#).
- [Click here to access teaching resources.](#)

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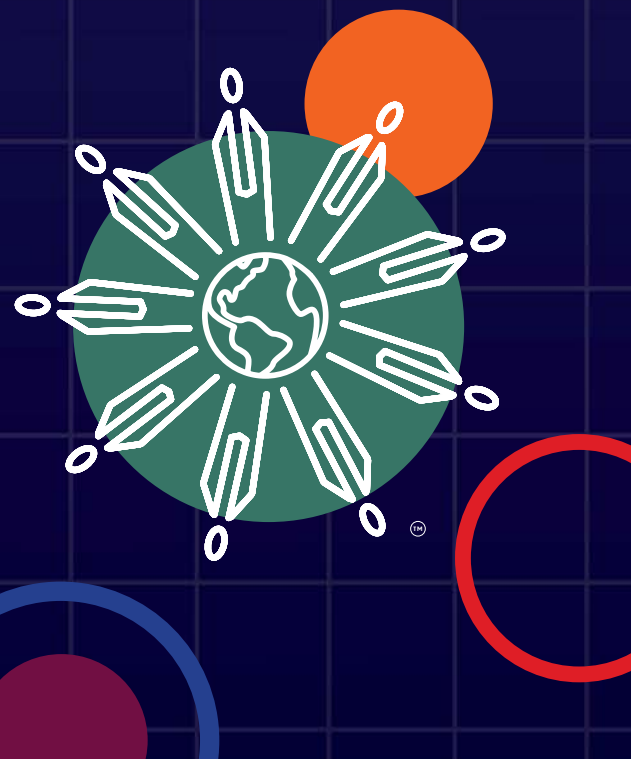
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 4: AVOID CERTAINTY (THE ACHILLES' HEEL OF SCIENCE).

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

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4 LESSON 4: AVOID CERTAINTY (THE ACHILLES' HEEL OF SCIENCE).

There is comfort in believing things are certain because we can stop thinking about them and worrying about them. But conditions and knowledge continue to evolve and change. What we thought certain yesterday, may turn out to be wrong tomorrow. If we are certain we are right, we stop learning and improving. We should listen carefully to the opinions of others – especially of those who disagree with us – and pursue diversity in teams to expand our understanding. By avoiding certainty we keep an open mind and seek to continuously improve our approach to solving the problem we are working on. Indeed, continuous improvement is based on the idea that we did not start with certainty.



THE BIG IDEAS

- Be cautious of the “way it’s always done”.
- Keep an open mind.
- Be open to new questions and potential new solutions.
- Because an approach works in one situation, that does not mean it is the right approach in all situations.
- Listen to all stakeholders, especially those who hold ideas that are very different from your own.
- Be willing to challenge your assumptions.
- Resisting certainty takes courage.
- Certainty means that we are not open to learning about the world by applying the scientific method. Certainty puts an end to continuous improvement and evaluation.

“Moral certainty is always a sign of cultural inferiority. The more uncivilized the man, the surer he is that he knows precisely what is right and what is wrong... The truly civilized man is always skeptical and tolerant, in this field as in all others. His culture is based on “I am not too sure.”

H.L. MENCKEN, WRITER, EDITOR, AND CRITIC



LESSON GOALS

In this lesson you will learn:

- The importance of avoiding certainty.
- Why the popular tried-and-true approaches are not always the best.
- Why it is important to understand the problem before creating a solution.
- To keep searching for answers.

“Seek first to understand,
and then to be understood.”

ST. FRANCIS OF ASSISI

Summaries and Reflections for Each Part

PART 4.1 AVOID CERTAINTY: SMALLPOX IN INDIA

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: Mass vaccination was the tried-and-true approach to smallpox eradication. Mass vaccination success was measured by the percentage of the population that was vaccinated, in order to achieve herd immunity. Most countries, WHO and other multilateral organizations were committed to this approach and operationally tied the goals to this strategic approach.

CHALLENGE: But it wasn't working in poor countries in Africa and Asia. In India, health officials thought that if they could vaccinate 80% of the population, they would reach “herd immunity” and smallpox would not be able to spread. But there were many places where they could not reach 80% of the population. Some places were too densely populated and had too much disease for eradication to work when no more than 80% of the population was vaccinated. In other places, vaccination workers were rewarded for vaccinating lots of people and thus had an incentive for reporting higher than actual numbers of vaccinated people. Despite these problems with the mass vaccination approach, WHO was concerned that changing strategies would cause governments to lose confidence in the eradication program. They were quite certain that the mass vaccination strategy would work.

SOLUTION: Therefore, a new approach—surveillance and containment—was tried, first in Nigeria, then in other African countries, and then in Asia. Only after this approach had been proven effective in the first few countries where it was tried, were the team able to convince the Indian government to change from mass immunization to surveillance and containment. From then on, it was much easier to get this surveillance and containment strategy accepted in all the countries that still had cases of smallpox.



REFLECTION

In this part, Dr. Foege and Dr. Parashar discuss a new approach needed to address smallpox, using surveillance to identify those most likely to get sick, and then protecting them with the vaccine. This was a very effective way to reduce the spread of disease.

- Why was it important to introduce a new approach?
- What could have happened if the same mass vaccination approach had continued to be used in India?
- In your own work, think of an experience where you or a colleague had a new approach, methodology or solution. Were others open to it? Did you encounter resistance from some people who were certain that their way was the right way?

PART 4.2 AVOID CERTAINTY: TRANSPORTATION FOR PREGNANT WOMEN IN GHANA.

Dr. Nana Twum Danso, Senior Vice President Global, Institute for Healthcare Improvement and Founder and CEO of MAZA

SITUATION: Women and their babies were dying from complications of home labor and delivery. Nana and her colleagues were pretty sure that they understood the problem. They thought this was happening because when the women went into labor they had no way to get themselves to their local healthcare facility. They thought that transportation to healthcare facilities that was local, affordable, and accessible was needed. Yet even after MAZA implemented motorized tricycles operated by local drivers in the community to transport women to healthcare facilities, the women were not going to the healthcare facilities. They were not using the transportation even when transportation was provided for free.

CHALLENGE: Nana and her team realized that they were trying to solve the wrong problem. The problem was not a lack of transportation. They realized that they needed to start over and understand the problem better.

SOLUTION: Therefore, an additional assessment was completed. It turned out that the problem was not that the transportation was unaffordable, but was instead, a lack of understanding of the risks of delivering at home. To address this challenge, community health education and behavior change was needed. Transportation was not the issue so the service was stopped.



REFLECTION

In this part, Dr. Twum Danso explains her belief that women were not able to get maternal care in rural communities and needed local, affordable transportation to medical facilities.

- Why was a new transportation method introduced in rural areas?
- How did certainty influence this decision?
- Why was the approach changed?

PART 4.3 AVOID CERTAINTY: HIV/AIDS TASKFORCE

*Dr. Jim Curran, Dean, Rollins School of Public Health,
and Co-Director of Emory Center for AIDS Research*

SITUATION: When HIV first became prominent as a mysterious disease, people had many theories of how it was spread, almost all of them focused on the “immoral and drug-fueled” sexual activities of highly stigmatized groups. They not only held very strong views but they were absolutely certain that they were right.

CHALLENGE: But the public, politicians and scientists were all challenged to rethink their ideas of spread when confronted by reports that the disease could be transmitted by infusing clotting factors from a donor to a patient with hemophilia.

SOLUTION: Therefore, people accepted that HIV was most likely transmitted by an infectious agent through multiple different routes, including exchange of bodily fluids, intravenous injections, and transfusions of blood products. This allowed multiple preventive measures to be tested and recommendations to be disseminated. In fact, CDC came out with preventive measures two years prior to the virus being genetically identified.



REFLECTION

In this part, Dr. Curran talks about how the CDC task force was created to investigate early cases of AIDS. He discusses the importance of gathering current data as well as being open to new information and hypotheses.

- Why were people open to new hypotheses?
- Some people seemed quite certain that a number of socially marginalized groups were responsible for the spread of the disease. How did this contribute to these groups becoming stigmatized?
- In your work, how has a new problem been addressed with a known solution? Did it solve the problem? Or were other approaches needed?

“We absolutely must leave room for doubt or there is no progress and no learning. People search for certainty. But there is no certainty.”

RICHARD FEYNMAN

PART 4.4 AVOID CERTAINTY: HIV

Dr. Matshidiso Moeti, Regional Director of the WHO Africa regional office

SITUATION: In the early 2000's WHO had adopted the ambitious goal of getting 3 million people on antiretroviral medicines by 2005.

CHALLENGE: But some people thought this was too ambitious a goal and that it could never be achieved. Leaders were afraid of making a mistake and being wrong, so they were hesitant to act until they were certain they could achieve their goal. Yet waiting would cause costly delays as the disease raged on, and prevent otherwise ambitious and very important programs from making progress.

SOLUTION: Therefore, leaders like Dr. Moeti adopted some of the lessons that had helped to eradicate smallpox many years before. Not waiting for certainty proved useful in informing and inspiring people working with WHO to reach their goals for distributing antiretroviral medicines for HIV/AIDS prevention and treatment in Africa. Taking action even when we are uncertain, and being ready to re-adjust our strategies and activities, is the only way to make important progress.



REFLECTION

In this part, Dr. Moeti talks about the uncertainty early in the AIDS epidemic and how important it is to learn as you go along and document information to guide future decisions.

- Have there been situations in which you felt unable or unwilling to commit to a particular strategy because you wanted to wait until you were certain that it would work?
- Did you worry that people might lose confidence in you or the program if you changed your strategy or approach? Did you worry about what people would think if you were to admit that you were uncertain about some aspects of your strategy?
- How do you measure the cost and consequences of not changing your strategy even after you know it is not working very well?
- Imagine you have been diagnosed with cancer. Your surgeon operates and finds that there is no cancer. Would you want them to admit that they might have been wrong? Or would you want them to finish the operation as if there had been a malignant tumor?



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- [Framework for Program Evaluation - CDC](#)
- [The Problem With Certainty - Morela Hernandez September 15, 2021](#)
- *No Ordinary Genius: The Illustrated Richard Feynman* - by Christopher Sykes
- [FEYNMAN:NO ORDINARY GENIUS Part One](#)
- [FEYNMAN: NO ORDINARY GENIUS Part Two](#)
- [Conversation Agent - Valeria Maltoni - Richard Feynman on Knowing Something and Certainty](#)

Deeper Dives:

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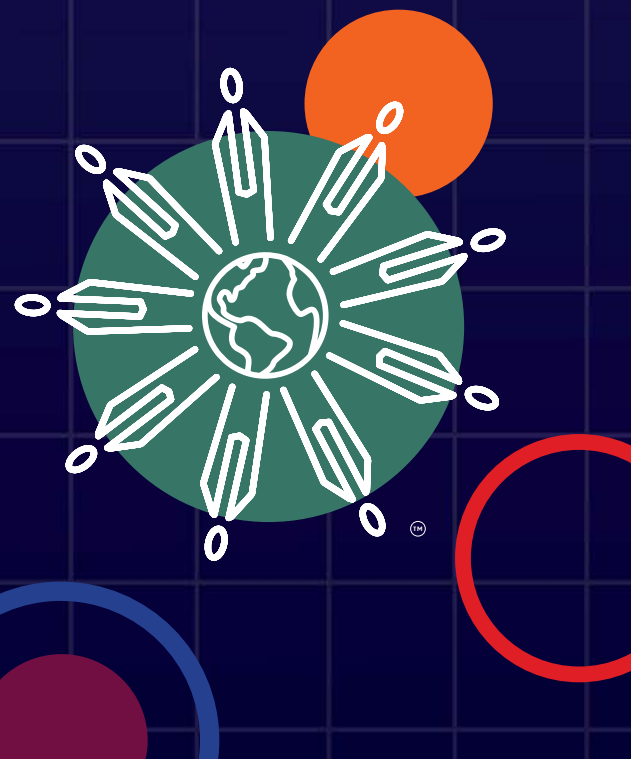
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 5: BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

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5 LESSON 5: BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT

Public health solutions and programs start out based on what we know at the beginning. However, once the program is implemented and engagement continues, we learn more and can see how well our strategy and tactics are working. Knowing that we want to improve what we are doing leads us to build evaluation into our program from the very beginning. The program must be examined frequently—as it develops, not waiting until it is finished—to see what is working and how it could be improved. We should solicit improvement ideas from everyone working on our project and listen to people at all levels, asking them how things can be improved.

“I have been struck again and again by how important measurement is to improving the human condition.”

BILL GATES



THE BIG IDEAS

- When we plan and implement a program for the first time, we don't know how well it will work. But we can study how well it is working and improve it as we go.
- You may not be successful the first time, but failure is not a terrible thing. We are bound to make mistakes, but we can see these as opportunities to learn how we can do better.
- Don't wait until your program is completed before thinking about how you will evaluate it. Plan your evaluation from the very beginning. This will help you see the kinds of data you should be collecting.
- Evaluation is a never-ending process. It should be part of a cycle that begins with planning, doing, assessing, then improving and repeating the cycle.
- If you are honestly evaluating your work, you will always find something that needs to be improved.
- Measurement and evaluation are necessary for success. We must keep searching for answers and adapting to new information.
- New tools and new approaches may be necessary to find the last remaining cases of a disease, to reveal more about disease transmission, and to improve surveillance. So we say that "The more successful you are at preventing new cases, the closer you have to look to find more cases. The closer you look, the more you see. The more you see, the more you learn."

"What gets measured, gets done."

— ANCIENT SAYING —



LESSON GOALS

In this lesson you will learn:

- Why continuous improvement is critical during program implementation.
- The value of listening to all stakeholders for feedback and to inform future strategy.
- Why finding the last cases of a disease is difficult.
- How evaluation can help you understand failure and develop new strategies.

**“Continuous Improvement is better
than delayed perfection.”**

MARK TWAIN

Summaries and Reflections for Each Part

PART 5.1 BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT: THE ROLE OF EVALUATION AND CONTINUOUS IMPROVEMENT IN SMALLPOX ERADICATION IN INDIA

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: In the battle to eradicate smallpox in India in 1974, finding and containing thousands of outbreaks was the key to getting smallpox under control. In mid 1974, the number of new outbreaks was starting to decrease slightly. The strategy of surveillance and containmen—which included a massive workforce, tireless efforts, and rewards for identifying new cases—was paying off.

CHALLENGE: But then we started to notice that members of previously vaccinated families were still coming down with smallpox. We should not have been seeing these new cases.

SOLUTION: Therefore we intensified our surveillance and evaluation to uncover what was happening and we found that people were being missed because they intentionally avoided vaccination. They did not trust anyone from the outside, especially government workers. Some parents intentionally hid their children from health workers when the vaccinators came. So, the team decided to improve the vaccination protocol by adding an additional step. They needed to measure even more. Now, before beginning vaccinations in a village, the team took a complete census of all households surrounding the outbreak, listing all the members of every household. In the evening, vaccinators would concentrate on finding everyone listed on the census form who had not yet been vaccinated.



REFLECTION

In this part, Dr. Foege and Dr. Parashar discuss the necessity for adding program evaluation and census measurements to the smallpox protocol. When new information was found, training of workers needed to be conducted. There was always a new step needed and improvement was continuous.

- What is an example of finding an improvement that needed to be made in your own work?
- How did you find out that it was needed?
- Census-taking was used in villages in India. What types of measurement have you found helpful for gaining information to inform improvement?

“Unless strategy evaluation is performed seriously and systematically, and unless strategists are willing to act on the results, energy will be used up defending yesterday.”

PETER DRUCKER

PART 5.2 BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT: POLIO SURVEILLANCE

Dr. Manish Patel, Influenza Prevention & Control Team Leader, CDC

SITUATION: The polio eradication program relied on strong surveillance efforts to inform vaccination efforts. Surveillance teams worldwide constantly searched for cases in which people had limbs that could not be moved and just hung limply, or cases of “flaccid paralysis.” When they found these cases, they would target vaccination to those regions. This was a very effective strategy when polio was widespread, because almost every case of flaccid paralysis was caused by polio. As vaccination coverage increased, cases of paralytic polio plummeted. As cases of flaccid paralysis began to disappear, polio was declared eliminated from many countries and regions.

CHALLENGE: But in many areas polio persisted. It was just harder to find. First, there were other causes of paralysis among children. As polio became much less frequent, the other causes of flaccid paralysis became more frequent than polio, so flaccid paralysis was no longer a good indicator of how widespread polio was in a particular area. And second, periodically, polio outbreaks still continued to occur and these would then seed the virus to different parts of the world and threaten eradication. As cases of paralysis decreased, it became tougher to find the few cases that continued to occur. For every case missed, workers were missing several hundred cases of silent or asymptomatic infection in the community and these silent cases continued to spread the virus.

SOLUTION: Therefore, some countries found a smart way around this problem. They realized that infected persons shed large amounts of poliovirus in their stool for many weeks. Since the viruses are stable in that environment, they can be found in the sewage of a community where there is ongoing circulation of the polio virus. So now, in addition to looking for cases of paralytic polio, they began to look for these silent cases of infection by looking for polio virus in sewer systems. The methods of detection are not easy – they need proper sampling of sewage and careful handling of specimens. They also need sufficient laboratory capacity. But the benefits of these investments can be tremendous. Environmental surveillance increased the ability to detect the silent spread of polio in a community – long before cases of paralytic polio were detected and even when no cases were detected. This allowed the polio program to aggressively vaccinate in these hotspots before the virus had established a foothold and spread widely in the community.



REFLECTION

In this part, Dr. Patel explains how it became harder to find new cases of polio. Evaluating the way polio cases were found and initiating additional measurements helped lead to hidden cases.

- Why did the researchers look for indicators of infection?
- How did the new measurement protocol help find hidden cases?
- How did this new surveillance tool help to reduce and eliminate spread of the virus?
- In your work, describe a situation where you were compelled to develop new ways to find cases or instances of the problem.

PART 5.3 BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT: INFANT MORTALITY IN GHANA

Dr. Nana Twum Danso, Senior Vice President Global, Institute for Healthcare Improvement and Founder and CEO of MAZA

SITUATION: Infants were dying in rural health centers because they had complications that couldn't be dealt with in those hospitals. Doctors thought that a way to address this would be to transfer them to a larger hospital with more neonatal capacity.

CHALLENGE: But, when the transfer solution was tried, it turned out that more infants were dying. Lives were not being saved. Babies continued to die because the transportation to the secondary or tertiary facilities took so long. The infants could not survive the trip.

SOLUTION: Therefore, it was decided that it was better not to try to transport these babies in trouble. But instead, to train the people at the community hospitals, whether they be midwives or nurses, to respond to these emergencies. This led them to radically change their strategy and then many babies were saved.



REFLECTION

In this part, Dr. Twum Danso discusses how a program evaluation helped change the initial protocol for caring for and transporting sick infants to hospitals to save more lives.

- What was the team's initial strategy?
- Why did the team find infant deaths continued to occur even when transporting them to higher level care?
- How did the evaluation lead to a change in strategy?
- Why is it important to include other information sources during an evaluation?
- How could you incorporate the experience of others in your continuous improvement program?

“Success is not final, failure is not fatal:
it is the courage to continue that counts.”

WINSTON CHURCHILL

PART 5.4 BUILD IN EVALUATION AND CONTINUOUS IMPROVEMENT: GUN VIOLENCE RESEARCH IN THE UNITED STATES

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

SITUATION: Gun violence takes an extraordinary toll on individuals, families, and communities in the United States.

CHALLENGE: But the NRA has been successful in working through Congress to make sure that much of the critical data for assessing the problem and finding interventions that work is not collected, maintained, or made available.

SOLUTION: Therefore, we, as a country, need to pursue the evidence and data to describe the problem, identify the causes, find out what works to reduce gun violence, and how the interventions that work can be implemented. We need to close the research gap so we can present the data to Congress and find interventions that will reduce gun violence without infringing on the rights of law-abiding gun owners.



REFLECTION

In this part, Dr. Rosenberg discussed how gun violence research became political, causing all research to stop.

- Why do you think the United States is the only high income country that has gun violence rates that are excessive?
- Why does the US have an ongoing epidemic of gun homicides?
- What about how we approach the problem makes the problem get worse?
- Has there been a situation in which you wished there were better data and surveillance information available when you started?
- Have you ever encountered a situation in which a particular group had an interest in hiding the truth so that the data you needed for evaluation and continuous improvement were not available?

You are editing your obituary every day.
What you do every day counts.”

BILL FOEGE



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- [Excerpt from Vision Zero Handbook](#)
Rosenberg, M., Laney, E., Tingvall, C. (2022). Vision Zero in Disease Eradication. In: Edvardsson Björnberg, K., Belin, MÅ., Hansson, S.O., Tingvall, C. (eds) The Vision The Zero Handbook. Springer, Cham
- [Framework for Program Evaluation - CDC](#)
- [Plan-Do-Study-Act \(PDSA\) Directions and Examples | Agency for Healthcare Research and Quality](#)
- [How to Improve | IHI - Institute for Healthcare Improvement](#)

Deeper Dives

- Exemplars research is studying best practices from around the world and what has worked to reduce neonatal and maternal deaths. Learn more: [Neonatal and Maternal Mortality](#).
- Adara Development is working in Uganda to bring evidence-based models and Centers of Excellence to support mothers and babies from pregnancy through the moment they return home after birth, reducing infant deaths. Learn more: [Working to save babies and mothers in Uganda](#).
- How can Africa's lessons on polio surveillance and mass vaccination support Mozambique and Malawi with new outbreaks? Learn more: [Africa's polio lessons may help Mozambique and Malawi contain new outbreaks](#).
- Read more about smallpox eradication in this Global Health Delivery Project case study: ["Smallpox Eradication: a blueprint for future public health strategy"](#).
- Click here to access [teaching resources](#).

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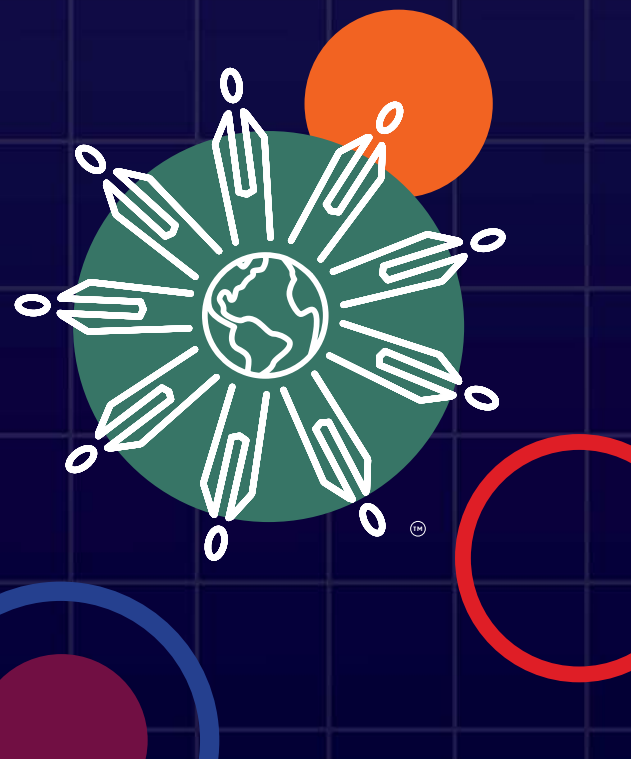
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 6: RESPECT THE CULTURE. CULTURE MATTERS.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



6 LESSON 6: RESPECT THE CULTURE. CULTURE MATTERS.

Every culture has its own traditions, beliefs and history. The challenge is to have sufficient insight and assistance to develop interventions that are not only acceptable to the culture, but that also use the attributes of that culture. To ensure interventions are accurate and appropriate, seek the help of the group who will be affected by the program as well as the group that will implement the program. It is much more efficient than trying to correct design and delivery issues afterwards. Remember that we are not there to do something to the beneficiaries. Nor are we there to do something for them. We are there to do something with them.

To accompany someone is to go somewhere with him or her, to break bread together, to be present on a journey with a beginning and an end.”

PAUL FARMER



THE BIG IDEAS

- Treat people with respect and dignity. Let others know that you see them.
- Seek first to understand. Seek to understand each other's values, culture and traditions.
- Culture shapes our relationships with others.
- Consider how powerful forces and history have shaped societies.
- When science goes up against culture, culture will always win.
- Practice cultural awareness and cultural humility.
- Most successful solutions are driven by the very people who live there.
- Working in another culture, you must work with people who reflect the culture and may be very different from you. Think back to Lesson 4: Avoid Certainty. Do not make the mistake of being certain that you fully understand the other culture.

**“A nation’s culture resides in the hearts
and in the soul of its people.”**

MAHATMA GANDHI



LESSON GOALS

In this lesson you will learn:

- Why culture must be considered when implementing a new intervention strategy.
- Techniques for working within a culture other than your own.
- Why messengers from outside a culture may not always be the most effective.
- Why it is important to talk with and include persons with lived experience.
- Why you cannot build trust without first understanding culture.
- Why it is critical to honor traditions and values of a community's culture.
- The importance of remembering that you are not there to do something to the people, or for the people, but you are there to do something with the people.

“We may have different religions, different languages, different colored skin, but we all belong to one human race.”

KOFI ANNAN

Summaries and Reflections for Each Part

PART 6.1 RESPECT THE CULTURE. CULTURE MATTERS: RESPECTING THE CULTURE IN SMALLPOX ERADICATION IN INDIA

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: In the early 1960s, India accounted for nearly 60 percent of the reported smallpox cases in the world. The Indian government had launched the National Smallpox Eradication Program which focused on mass vaccination. By 1966, the Indian government reported approximately 60 million primary vaccinations. Mass vaccination campaigns had become part of the culture, and there was wide trust in this singular approach.

CHALLENGE: However, the number of smallpox cases in India was increasing and India needed a new strategy. Mass vaccination was effective in reaching approximately 60% of the population but was not able to prevent new outbreaks in Bihar state. The surveillance and containment approach had been demonstrated to be effective in African countries and Brazil, and had been initiated throughout India. But there were some influential people in India who felt they had enough smallpox workers and that this new strategy was a foreign strategy. Leaders from CDC and WHO worked side-by-side with Indian leaders to implement the new surveillance and containment strategy, but it was not enough to bring about acceptance of the new approach. The Minister of Health of the state of Bihar felt political pressure to stop this new strategy and threatened to go back to mass vaccination.

SOLUTION: Two things happened that reflected the importance of understanding Indian culture. First, a young Indian public health worker explained the strategy behind surveillance and containment. He told the Minister that “in my village when there is a house on fire, we pour water just on that house, not on every house in the village.” By using culturally relevant analogies, he convinced the Minister of Health of Bihar to allow 30 more days for the team to demonstrate the strategy of surveillance and containment was working. Second, with an understanding of the political culture, the team told the Minister from Bihar, that “yes, it was true that India had enough workers

to do the job. But if they wanted to finish it in a timely manner and complete it during his tenure in office...” they needed to use the additional manpower that foreign workers would bring. These two culturally-sensitive arguments convinced the Minister, and, as a result, he supported the effort required to implement this strategy, far surpassing anything that had ever been done before. This could never have been done without the full support of the Indian leaders who had grown up in that culture.



REFLECTION

In this part, Dr. Foege and Dr. Parashar discuss the importance of understanding culture and the impact of joining forces with members of each culture.

- Do you think you can be a part of multiple cultures at one time?
- List some examples of different cultural worlds you inhabit.
- What are some specific behaviors?
- What roles, hierarchies or power dynamics exist?
- Where might there be intersecting cultural worlds?

**“Not the ones speaking the same language,
but the ones sharing the same feeling
understand each other.”**

RUMI

PART 6.2 STORY A - RESPECT THE CULTURE. CULTURE MATTERS: DR. HANS ROSLING IN MOZAMBIQUE

Melinda French Gates, Co-chair of the Bill & Melinda Gates Foundation

SITUATION: In Mozambique, there was local distrust of the health clinic. A woman did come into the health clinic to deliver her child but both she and the child died in childbirth. The doctor, Hans Rosling, felt terrible and worried that he would never regain the trust of the people in the surrounding villages.

CHALLENGE: But he learned that it was important for him to return the bodies to the village for a proper burial as a sign of respect for the local culture.

SOLUTION: Therefore, he did what the culture demanded and by respecting the culture, Hans actually built trust and credibility with the villagers and was accepted by them.



REFLECTION

In this part, Melinda French Gates explains how Hans Rosling and his wife learned to listen to local cultures and practice local customs to earn respect and trust in the community.

- Thinking about one of the cultural worlds from earlier, what are some of the overarching values, commitments, traditions and goals practiced in that world?
- Dr. Rosling listened to a nun in the community about respecting traditions. What would an outsider need to do to be respected in your community?

PART 6.2 STORY B - RESPECT THE CULTURE. CULTURE MATTERS: CHANGING PERSPECTIVES AND CULTURE AROUND WOMEN AND GIRLS

Dr. Helene Gayle, President, Chicago Community Trust

SITUATION: In many cultures, women bear most of the responsibilities in a family. Women want to educate their children and enhance their well-being. They want a better life for their children and they want them to be able to escape poverty.

CHALLENGE: But in many places around the world, women lack power and are limited in what they are able to do and the resources and jobs they can access.

SOLUTION: Therefore, giving women power may often be a very effective way to help their families escape poverty and transform society for the better.



REFLECTION

In this part, Dr. Gayle talks about how changing programs within CARE to focus on girls and women in poverty helped change the view and cultural experiences of women.

- What are some of the benefits of focusing on girls and women in programming?
- How have gender roles influenced culture in your work or personal life?

PART 6.3 RESPECT THE CULTURE.

CULTURE MATTERS: UNDERSTANDING THE GUN RIGHTS CULTURE IN THE UNITED STATES

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

SITUATION: Gun violence research sought ways to prevent unnecessary gun deaths, disabilities, and anxiety. Many gun owners opposed research by the CDC on gun violence prevention because they believed that the goal of the research was to take their guns away.

CHALLENGE: But the rise of mass school shootings led to a change in perspective because everyone was concerned about the safety of their children.

SOLUTION: Therefore, stating that gun violence research could satisfy 2 objectives—protecting gun rights AND reducing gun violence at the same time—was key to getting gun rights advocates to collaborate effectively with gun violence prevention advocates to reinstate federal funding for gun violence research.



REFLECTION

In this part, Dr. Rosenberg talks about how understanding the views and culture of those opposing gun violence research can help further discussions and lead to encouraging results.

- Think of an example from your work life where you strongly disagreed with someone, but later learned to appreciate their views.
- How did you communicate with them?
- Were you eventually able to work together?
- What techniques did you use to come to agreement or resolve issues?

“If you tangle with culture, culture will always win.”

BILL FOEGE



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- Paul Farmer, “Accompaniment as Policy,” in Paul Farmer, *To Repair the World: Paul Farmer Speaks to the Next Generation*, ed. Jonathan Weigel (Berkeley: University of California Press, 2013), 234
- [Society for Cultural Anthropology](#)
- *Identity and Agency in Cultural Worlds* by Dorothy Holland, William S. Lachicotte, Jr., Debra Skinner, Carole Cain
- [A New Approach to Gun Violence Prevention - The Daily Show with Trevor Noah \(Video Clip\) | Comedy Central US](#)
- [‘It was Really a Love Story’. How an NRA Ally Became a Gun Safety Advocate](#)

Deeper Dives:

- Read more about smallpox eradication in this [Global Health Delivery Project case study: "Smallpox Eradication: a blueprint for future public health strategy"](#).
- [Click here to access teaching resources.](#)

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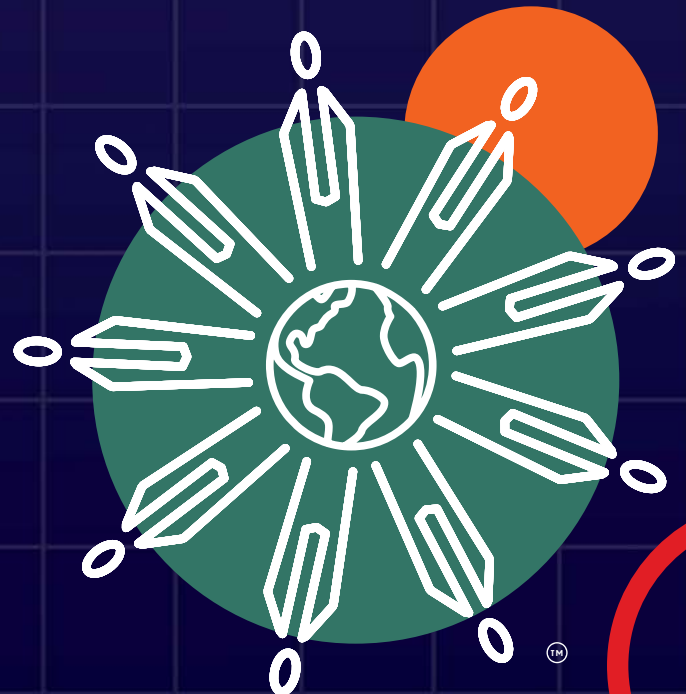
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 7: THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



7

LESSON 7: THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT.

In public health, understanding the science of a problem and its solution is necessary but not sufficient. Solutions need to be implemented, programs need to be managed, and results need to be delivered. This requires both strong leadership and skilled management. Delivering results requires skills that scientists do not always possess. These are skills that can often be found in businesses where success is not measured by the number of scientific papers published and guidelines written, but in products delivered.



THE BIG IDEAS

- A good manager will know how to break tasks down into manageable parts.
- The corporate or business sector can often contribute skilled managers and share management skills to help address public health delivery needs.
- Effective management requires skilled management of meetings, projects, and people.
- There is power in management and leadership partnerships, especially when these complement and build upon evidence-based strategies and incorporate continuous improvement.
- Tenacity and passion are not enough to solve problems. Management and leadership are needed to create action.
- Leading people by engaging in a personal way helps inspire others.
- Sharing success stories is a critical management tool. A willingness to honestly explore and learn lessons from unsuccessful stories, i.e. our mistakes, may be even more important.
- Community engagement, strong data management, and reporting systems across all levels of a health system, can support improved access to vaccines and other healthcare solutions.

“Knowing is not enough; we must act.
Willing is not enough; we must do.”

GOETHE



LESSON GOALS

In this lesson you will learn:

- How strong leadership combined with effective management skills help deliver public health solutions.
- How corporate management techniques can be used in public health situations.
- How carefully managed technology tools have improved health care logistics and delivery.
- How personal connections and sharing stories helps build a successful workforce.
- The importance of consistently delivering scientific information through strong management and leadership.

Summaries and Reflections for Each Part

PART 7.1 THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT: SCIENCE AND LEADERSHIP IN SMALLPOX ERADICATION IN INDIA

Dr. Larry Brilliant, CEO of Pandefense Advisory

Dr. Girija Brilliant, Co-founder of Seva Foundation

“Leadership is the art of accomplishing more than the science of management says is possible.”

COLIN POWELL

SITUATION: In early 1974, smallpox outbreaks were appearing in areas of India that had been smallpox-free for months. After a week of plotting the epidemic with pushpins on hand-drawn maps, a pattern emerged. Each outbreak began with a working-age young man who had returned home to his village. These cases were “importations.” The young men had come from—or traveled through—the bordering state of Bihar. Cases were originating in Tatanagar, the company town of the corporate behemoth, Tata Companies.

CHALLENGE: Tatanagar, a city in the state of Bihar, had no centralized government, and no public health structure in place. Such an outbreak would require finding every case of smallpox and engineering a ring of immunity around it, tracing each outbreak to its source, posting watch guards, and vaccinating nearly every one of the three-quarters of a million residents of the area. But there was no army, public health corps, or centralized entity to manage such an effort.

SOLUTION: Therefore, the leadership of Tata Companies was approached. The smallpox team had assumed the private sector was neither interested in nor willing to contribute to this battle. But when the chairman of Tata Industries was told that Tatanagar was responsible for one of the worst outbreaks of smallpox in history, he offered to help and bear full financial responsibility for stopping the outbreak and the exportations. Teams of Tata vaccinators trained by WHO staff conducted door-to-door searches for new cases to execute the containment procedures required. The very comprehensive outline included an operating plan, a budget, duties, and responsibilities by person and time.

Within seventy-two hours, Tata vacated a building and turned it over to the smallpox team. They added fifty doctors from Tata hospitals around the country, two hundred paramedical supervisors, six hundred search workers, fifty jeeps, and an army of one thousand Tata managers and volunteers.

These teams oversaw weekly searches, and vaccination and containment efforts of the nearly two hundred thousand homes on the peninsula. This was a massive project that could only have been done with management support from the private sector.



REFLECTION

In this part, Dr. Larry Brilliant and Dr. Girija Brilliant discuss how Tata corporate leadership used their management skills to help halt the outbreak and export of smallpox.

- Think of a time in your experience when a powerful organization was needed to help accomplish a goal.
- What were some of the skills exhibited by the leaders?
- Were there any specific management techniques that influenced the solution?
- Why do you think businesses are good at delivery and public health has more difficulty?

“A good manager knows that poverty drives innovation and will capture and apply the products of that innovation.”

MARK ROSENBERG

PART 7.2 THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT: AN INNOVATIVE USE OF DRONES TO DELIVER VACCINES

Dr. Seth Berkley, CEO, GAVI

SITUATION: One of the most challenging things for vaccinations is reaching those who live “at the end of the road”—those who are geographically isolated due to distance or living in hard to access regions. A well-functioning delivery system is one that reaches the patient at the point-of-care. Such a system is essential for adequate access to and availability of vaccines.

CHALLENGE: But, while across Africa governments and donors are investing billions of dollars to strengthen health systems and make affordable medicines available, government supply chains often struggle to get medicines and supplies through the last mile to the health facilities and to the people who need them most.

SOLUTION: Therefore, the use of drones in vaccine delivery is a positive aspect of globalization—utilizing new technologies in remote areas. The science of drones had been developed, but innovative leadership and strong management were needed to use them for vaccine and pharmaceutical deliveries.



REFLECTION

In this part, Dr. Berkley explains how the use of drones and logistics management helped deliver vaccines to remote areas.

- Think of a big problem in your work that was addressed by technology tools.
- How was the tool implemented?
- Do you think the implementation was more science-based, management-based, or leadership-based?
- Was there anything that could have been improved? How?
- How is science or technology used in other areas, for good or bad?
- Think of an example where science, leadership, and management have been used in ways that you see as destructive.

“The very best managers think first with their heart, and then with their head.”

MARK ROSENBERG

PART 7.3 STORY A - THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT: GETTING MEDICATION TO THOSE WHO NEED IT AND MANAGING VOLUNTEERS.

Steve Stirling, President and CEO, MAP International

SITUATION: Many programs rely on volunteers to do parts of the work.

CHALLENGE: But, utilizing, motivating, and managing volunteers is often tricky for NGOs to do effectively.

SOLUTION: Steve Stirling, a very skilled and passionate leader, used his own story to inspire and motivate an army of volunteers for his NGO. He told how as a toddler he had polio and had to crawl instead of walk. He decided he would dedicate his life to making sure that all children could grow up with access to the essential medicines and vaccines that they needed to live a healthy life. Steve inspired companies to donate essential medicines and vaccines and hundreds of volunteers to help distribute them.



REFLECTION

In this part, Steve Sterling talks about leadership by inspiring others through personal stories.

- Thinking about your work, who has inspired you?
- How have you used personal storytelling to motivate and inspire others?
- Did this help achieve your goals? Why or why not?

“Science without conscience is but the ruin of the soul.”

FRANCOIS RABELAIS

PART 7.3 STORY B - THE BEST DECISIONS ARE BASED ON THE BEST SCIENCE, BUT THE BEST RESULTS ALSO REQUIRE STRONG LEADERSHIP AND MANAGEMENT: IMMUNIZATIONS IN NEPAL

Dr. Sameer Dixit, Director of Research, The Center for Molecular Dynamics

SITUATION: in 2016, Nepal became the first country in the region to implement a national immunization act, which ensured that all children have the right to vaccines.

CHALLENGE: Nepal’s geography represents a barrier to the delivery of health services. Eighty percent of Nepal’s population lives in rural areas, many of which are difficult to reach by road or air. These challenges resulted in a high child mortality rate and low vaccination coverage together with a lack of political support and funding.

SOLUTION: Therefore, Nepal enacted a series of management actions to strengthen community engagement, align national priorities, implement strong data management, and track progress with frequent course corrections. They also implemented a program to utilize women as community health workers, and this made all the difference.



REFLECTION

In this part, Dr. Dixit talks about the combination of factors that helped achieve high vaccination rates in Nepal.

- How does effective data gathering help in your work?
- What lessons have you learned about community engagement that could help plan public health interventions?
- Why was the demand or need for vaccines in Nepal a critical factor in achieving their goal of improved vaccination rates?
- Why is transparency in decision-making such an important part of strong partnerships?
- How did the program empower women as community health volunteers?
- List 2 other leadership skills that help make successful health programs.



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- **Global Health Leadership and Management 1st Edition - William H. Foege, Nils Daulaire, Robert Black, Clarence Pearson**
- **The Fears of the Rich, the Needs of the Poor: My Years at the CDC - William H. Foege**

- **House on Fire: The fight to Eradicate Smallpox - William H. Foegen**
- **Howard Hiatt: How This Extraordinary Mentor Transformed Health with Science and Compassion - Mark L. Rosenberg**
- **World Health Organization. [Global Vaccine Action Plan 2011-2020](#). 978 92 4 1504980.**
- **World Health Organization. [Immunization Agenda 2030: A Global Strategy to Leave No One Behind](#).**
- **[Data innovations and insights](#): Novel approaches to using data to inform equity-related decision-making. Amie Batson, Jeff Bernson, Breese McIlvaine, Peder Digre. Equity Reference Group for Immunization; 2018.**
- **World Health Organization. [WHO recommendations for routine immunization - summary tables](#).**
- **[No product, no program](#): The critical role of supply chains in closing the immunization gap. Matshidiso Moeti, Robin Nandy, Seth Berkley, Steve Davis, Orin Levine. Vaccine. 2017;35(17):2101-2102. DOI: 10.1016/j.vaccine.2017.02.061.**

Deeper Dives

- **Exemplars research is studying best practices from around the world and what has worked to build better systems for vaccine delivery that can reach and protect all children. This includes work in Nepal with Exemplars research partner Samir Dixit. Learn more: [Vaccine Delivery](#).**
- **Exemplars research partners from Senegal share their perspective on how Senegal mitigated the impact of COVID-19 on routine childhood immunizations in Senegal. Learn more: [Senegal Mitigation](#).**

- **Electronic Immunization Registries (EIRs) have been a successful tool to monitor drops in immunization in real time and support leadership to act quickly. Learn more about how this approach was used in Pakistan to achieve pre-COVID-19 routine immunization rates and address gender disparities: [EIRS](#).**
- **Read more about smallpox eradication in this Global Health Delivery Project case study: "[SmallpoxEradication:a blueprint for future public healthstrategy](#)".**
- **Click here to access [teaching resources](#).**

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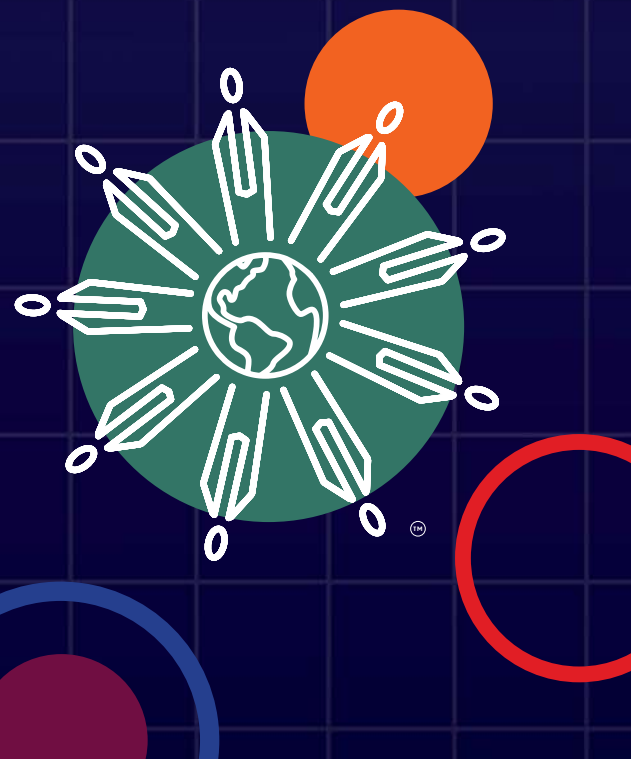
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 8: MOBILIZE POLITICAL WILL, BECAUSE WITH IT, ANYTHING IS POSSIBLE; WITHOUT IT, NOTHING IS.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



8 LESSON 8: MOBILIZE POLITICAL WILL, BECAUSE WITH IT, ANYTHING IS POSSIBLE; WITHOUT IT, NOTHING IS.

Public health is responsible for the health of everyone in a particular jurisdiction, not just the health of those who come to a hospital or see a nurse or doctor. And in most cases, the only institution that is responsible for everyone is the government, and the government pays for public health. For this reason politicians are necessarily involved in developing public health policies, implementing them, and paying for them.

Understanding the problem and how to solve it, is not enough. These policies must be transformed into action. So the support of the political body is necessary to make things happen, not just in the realm of public health.

Political will can also refer to the decision-making of groups other than the government. Political will is a commitment to action by these decision-makers. The best policies and regulations come when scientists work together with politicians to craft them. Policymakers must be held accountable.

“Success requires three ingredients: a requisite scientific knowledge base, a social strategy for utilizing that knowledge base, and political support for the strategy.”

— JULIUS “JULIE” RICHMOND —



THE BIG IDEAS

- Government institutions are involved in all public health decisions, because in most cases the government is the only institution that is focused on everyone.
- Change requires scientific evidence, a strategy for implementing the change, and the commitment of key decision-makers to turn the strategy into action.
- Societal and political commitment is essential, as well as the capacity for financial, managerial and technical support. Disease eradication programs should not bypass or compromise existing health systems and attempts should be made to expand benefits to health services beyond the limited impact of eradicating the target disease. The government should commit support with a willingness to sustain the effort until the campaign has been successful.
- Creating a social strategy helps to persuade the government to make changes.
- A great idea may be lost if you cannot gain support for it and inspire action.
- Listening without judging and educating oneself as well as others is an important part of developing political will.
- Not taking individual credit for a change is often the secret weapon in gaining political will.

**“Politicians best support public health
when we use the fears of the rich to meet
the needs of the poor.”**

BILL FOEGE



LESSON GOALS

In this lesson you will learn:

- Why getting government support is so important.
- Ways in which politics affect public health decisions.
- Why culture and politics are closely related.
- How convincing political leaders that disease can be controlled during their tenure is an effective strategy.
- The importance of making a plan that is difficult for leaders to ignore.

“Credit is infinitely divisible. Give it away every chance you get, and there’s always plenty left for you.”

DON BERWICK

Summaries and Reflections for Each Part

PART 8.1 MOBILIZE POLITICAL WILL, BECAUSE WITH IT, ANYTHING IS POSSIBLE; WITHOUT IT, NOTHING IS: MOBILIZING POLITICAL WILL IN SMALLPOX ERADICATION IN INDIA

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: In 1973 India had thousands of cases of smallpox. For a while they were reporting one thousand new cases every day. Leaders of the eradication effort wanted to solicit help from WHO and bring in physicians, epidemiologists and health worker volunteers from other countries to supplement the Indian teams.

CHALLENGE: But the Minister of Health for India felt that India had plenty of health workers and volunteers to do the job and said that people from other countries were not needed. The Minister's support for the smallpox effort was essential, so the team had to convince him to support bringing in workers from other countries without being critical of the great resources India already had.

SOLUTION: Therefore, the smallpox team approached the minister and told him that the Indian people certainly had the ability and resources needed to eradicate smallpox on their own. But if the minister wanted to eradicate smallpox while he was still minister—and get the credit for this—it would really help to bring in foreign workers who could work side-by-side with the Indian workers and reach the eradication goal much more quickly. This argument convinced the minister to bring in citizens of other countries to help in the effort.



REFLECTION

In this part, Dr. Foege and Dr. Parashar discuss how government leaders needed to be persuaded to support the new surveillance and containment smallpox strategy.

- Recall in Lesson 6 how culture played a critical role in the smallpox vaccination strategy change. Why do you think that this time the Minister of Health needed to be convinced to let workers from other countries help with the eradication program? How did politics come into play here?
- Thinking about your own work, is there a time when you or someone you know had the courage to stand up to political leaders?
- How did you seek to understand their point of view and use that to refine your argument and strategy?
- What was the result?

“We have the means and capacity to deal with our problems, if only we can find the political will.”

KOFI ANNAN

PART 8.2 MOBILIZE POLITICAL WILL, BECAUSE WITH IT, ANYTHING IS POSSIBLE; WITHOUT IT, NOTHING IS: FEMALE GENITAL CUTTING IN SENEGAL

Melinda French Gates, Co-chair of the Bill & Melinda Gates Foundation

SITUATION: In Senegal, young girls usually had to go through a painful process deeply embedded in the culture of their society that served no purpose, and had been going on generation after generation. Girls and women were advocating for an end to this practice of female genital cutting.

CHALLENGE: But their pleas were not enough to convince men throughout the country to stop this traditional cultural practice.

SOLUTION: Therefore, a group of women villagers shared their detailed stories with a group of village chiefs and leaders. When these powerful men heard their stories, they saw the women’s perspective and were persuaded that the practice should come to an end. Once the leaders of one village were persuaded, they were able to convince the leaders of other villages to also end female genital cutting.



REFLECTION

In this part, Melinda French Gates explains how gaining village support was critical for educating on the dangers of female genital cutting.

- How do culture and politics seem to be tied together?
- What did Molly Melching at Tostan do to gain support in the village?
- How did coalitions help change political will in the village?
- What experiences have you had where you tried to make change at the political level?

PART 8.3 MOBILIZE POLITICAL WILL, BECAUSE WITH IT, ANYTHING IS POSSIBLE; WITHOUT IT, NOTHING IS: ZIKA IN LATIN AMERICA

DR. ANGELA HILMERS, DIRECTOR OF STRATEGIC AND TECHNICAL INITIATIVES, TEPHINET, THE TASK FORCE FOR GLOBAL HEALTH

SITUATION: In February 2016, the World Health Organization declared the Zika virus outbreak a Public Health Emergency of International Concern. The Latin America and Caribbean (LAC) region was the most affected with more than 700,000 cases reported. In response to the outbreak, the U.S. Government allocated a portion of the funds remaining from the previous Ebola outbreak response to the LAC region.

CHALLENGE: But money was not enough. The region lacked the public health and laboratory infrastructure for disease surveillance, contact tracing, and diagnostics, and needed to quickly build a workforce to respond and prevent future outbreaks.

SOLUTION: Therefore, 12 countries committed to an ambitious goal of training a cadre of health workers through a Frontline Field Epidemiology Training Program (FETP) with the CDC and the Task Force for Global Health's TEPHINET program. The team met with political leaders like the vice minister of Uruguay, which had not had an FETP program, and explained what it was and how they could help. The vice minister showed interest and agreed to use his office to help implement the program. He assigned a contact at the Ministry of Health, the director of the epidemiology department, who participated very actively in program implementation.

Similarly, strong levels of political commitment made it possible for several additional countries to accelerate and complete trainings in just six months that would normally have taken more than a year. In total, more than 1200 public health workers completed the frontline training. And countries like Brazil, Colombia and Paraguay invested further, securing funds for additional trainings to further strengthen their health systems. With this training and with strong political support, they were able to greatly reduce the impact of Zika on the population.



REFLECTION

In this part, Dr. Hilmers talks about how countries were able to mobilize high-level political support to work with TEPHINET and accelerate the training of critical personnel for controlling the Zika epidemic.

- What are some barriers to quickly building capacity for a health program?
- How would you explain the importance of creating a program to a superior or leader whose support you needed?
- Is funding the only way to convince a leader to support a program? What might some other ways be? How would culture come into play here?



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- **The Vision Zero Handbook Disease Elimination and Eradication: Lessons from the Front Lines That Apply To More Than Infectious Diseases—Mark Rosenberg, Emaline Laney, and Claes Tingvall, Springer-Nature, September 2022.**
- **The Importance of Giving Credit—Sachin H. Jain, Harvard Business Review, March 07, 2014**

Deeper Dives

- **Dr. Walter Orenstein, the former Director of the US National Immunization Program, shares his perspective on what it takes to get vaccines into arms. Learn more: [Vaccinations, political will, and the importance of using anecdotal data for good](#)**
- **How have Peru, Liberia and Brazil taken advantage of an opportunity to build political will to transform outcomes? Learn more: [How leaders leveraged windows of opportunity](#)**
- **Read more about smallpox eradication in this Global Health Delivery Project case study: ["Smallpox Eradication: a blueprint for future public health strategy"](#).**
- **Click here to access [teaching resources](#).**

Use this space to note any questions you might have or things you want to research further.

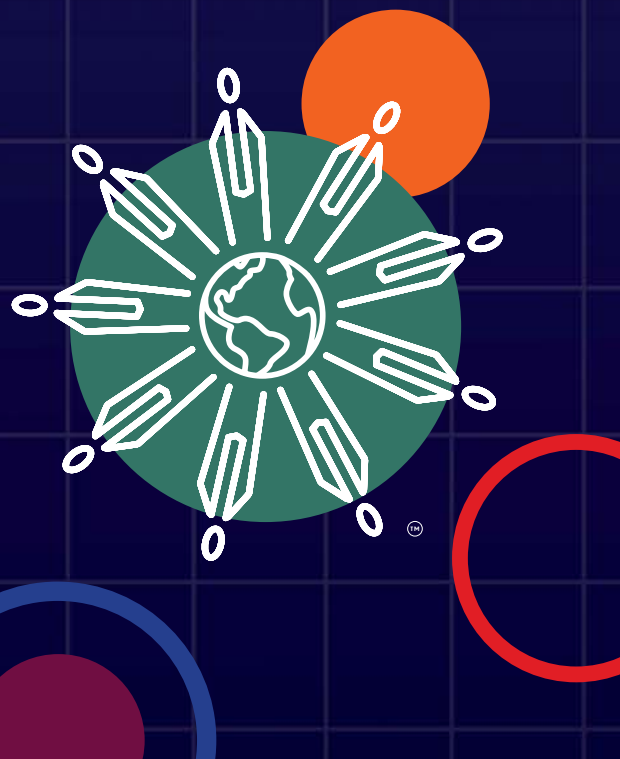
BECOMING BETTER ANCESTORS™ LEARNING GUIDE

LESSON 9: THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY.

Program summary:

Smallpox was a horrific disease that spread suffering and death for centuries across our planet, claiming millions upon millions of human lives. In ten short years, before computers or smartphones, from 1966-1976, a small group of united and determined people proposed a strategy to end this scourge. Building on the work of many generations before them, hundreds of thousands of people from dozens of countries joined in these efforts. Collectively, they succeeded in eradicating smallpox, the only human disease ever wiped off the face of the earth.

Becoming Better Ancestors™ teaches 9 core lessons from the eradication of smallpox that anyone can use to change the world in small ways and in very, very big ways.



9 LESSON 9: THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY.

Global health equity means that people everywhere have access to the tools and means of good health and well being. Equity is tied to the idea of “the golden rule,” the idea that we should treat others as we, ourselves, would like to be treated. Confucius, when asked to describe in one word how best we should live, said “is not reciprocity that word”? We must inspire people to pursue equity with the same passion they pursue their own good. Equity is also tied to the idea of interdependence. Much of our education promotes the idea of independence, yet the real world requires interdependence.

Ultimate global health equity has only been achieved once for humans—with the eradication of smallpox—but that should not discourage us from seeking levels of equity short of this ultimate goal. Equity is something that we can measure, and we can make sure that every program has as one of its goals the achievement of equity. Every program should be designed to measure and reduce inequities.

“There comes a time when the world can no longer exist half healthy and half sick.”

BILL FOEGE



THE BIG IDEAS

- Equity is when everyone has an equal access to the tools and means of good health and wellbeing. The tools include knowledge, resources and access to people, and the ability to access the health system.
- Equity increases opportunities for all people. When there is more opportunity, more choices are available, and quality of life improves.
- Every program should have an equity goal.
- Both the process we use to implement our programs and the outcomes of our programs should be equitable. We can measure health equity and work deliberately to eliminate inequities and health disparities.
- Health equity is a human right. Equal health cannot be guaranteed because genetics and the social, economic and political determinants of health are not equally distributed.
- Nobody is safe until everyone is safe. The health conditions that affect the most vulnerable will also impact the most wealthy, whether you are talking about the health of individuals or populations.
- The core value of public health is social justice.

“The idea that some lives matter less than others is the root of all that is wrong with the world.”

PAUL FARMER



LESSON GOALS

In this lesson you will learn:

- Global health equity is the state in which everyone everywhere has equal access to the tools, knowledge, resources and access to health systems to attain the highest attainable level of health.
- The distinction between equality and equity.
- An important distinction between public health and healthcare delivery is that public health is responsible for everyone, not just those who come into the office of a doctor, healthcare worker, or a hospital.
- Why designing health programs must be intentional and why the goal of global health equity should be a factor in the design of all health programs.
- How other people's health and well being affects our own lives.
- Public health change is most effective if it builds on the fears of the rich to meet the needs of the poor.
- Why you need to ask the right questions to get to global health equity.

“We may have different religions, different languages, different colored skin, but we all belong to one human race.”

KOFI ANNAN

Summaries and Reflections for Each Part

PART 9.1 THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY: SMALLPOX ERADICATION WAS A GIANT STEP TOWARDS GLOBAL HEALTH EQUITY.

Dr. Bill Foege, Senior Advisor, Bill & Melinda Gates Foundation

Dr. Susmita Parashar, Associate Professor, Emory University School of Medicine

SITUATION: An effective vaccine for preventing smallpox had been discovered and tested by 1796. By the 1970's widespread vaccination resulted in most people in rich countries being vaccinated and almost completely protected. Smallpox was actually eliminated from developed countries in the 1970s.

CHALLENGE: But the burden of smallpox was inequitably distributed. People in some poor countries remained vulnerable and faced high risks of mortality from smallpox. It was within the poorest communities that smallpox was spread. In some countries, such as India, vaccine programs were struggling to eradicate the disease. As long as there were pockets of smallpox in poor communities within low-income countries, the entire world was at risk of smallpox. This is a pattern that is seen with many different diseases and conditions today: wealthier people in high-income countries tend to be free from or protected against diseases and injuries that continue to affect low-income people. The health problems and risks of the poor continue long after they have been reduced or eliminated for the wealthy. Diseases and conditions continue to circulate among the poor and in low-income countries creating big disparities.

SOLUTION: Therefore the most powerful nations acting through WHO came together to eradicate smallpox and achieve equity. The eradication of smallpox means that even the poorest places on earth, where smallpox had ravaged the population for centuries, are now protected. The global smallpox eradication campaign completely leveled the playing field by bringing the risk of smallpox to zero for everyone, rich or poor, no matter where they lived, and even for those not yet born. Smallpox eradication was a major step toward true global health equity.



REFLECTION

In this part, Dr. Foege and Dr. Parashar discuss how smallpox eradication helped to further global equity.

Thinking about a problem or situation in your own work...

- What is the difference between equity and equality in the way you think about these ideas?
- List 2 examples of equity and 2 examples of equality.
- Why is equity so important in public health?
- How has your work been related to equity?
- How do you plan to make the concept of equity important in your future work?

“The great cathedral builders worked on projects that took 200 years to complete, and they worked even though they knew they would not live to see their work completed. Equity may also seem like a far off goal, but it is a goal we should be willing to commit to, even if we realize we might not see it achieved in our lifetime.”

BILL FOEGE

PART 9.2 THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY: MULTI-DRUG RESISTANT TB TREATMENT/PREFERENTIAL OPTIONS FOR THE POOR.

Dr. Jim Kim, co-founder of Partners in Health and former President of the World Bank Group

Dr. Mark Rosenberg, President Emeritus, The Task Force for Global Health

SITUATION: Partners in Health (PIH) is a non-profit global health organization established by Paul Farmer, Jim Kim, and three colleagues to bring health care to the poorest people in low-income countries. PIH believed that these people deserve healthcare that was as good as the healthcare that rich people in the most advanced countries received. They found that poor people living in a shanty town outside of Lima, Peru had very high rates of multidrug-resistant tuberculosis (MDR TB), a disease that was notoriously hard to treat.

Challenge: But MDR TB was not only very difficult to treat, requiring 18 months of treatment with 7 different drugs that had many toxic side-effects, it was very expensive to treat. When an outbreak of MDR TB occurred in New York City in the 1990's, each successful treatment cost \$200,000; more than 200 times the cost of treating a case of drug-susceptible TB. This led the World Health Organization to declare that when MDR TB occurred in poor people in resource-poor settings, they should not be treated, which meant that they would be left to die. Jim and Paul felt that this policy actively endorsed inequity and was unacceptable. To get this policy changed meant that they would have to demonstrate that MDR TB could be treated just as effectively in resource-poor settings for much less than \$200,000 for each case.

Solution: Therefore Jim and Paul worked with a coalition of partners that included PIH, CDC, WHO, the government of Peru, and The Task Force for Global Health. Supported by a \$44.5M grant from the Bill and Melinda Gates Foundation, the coalition demonstrated that it was feasible in poor settings to obtain a cure rate for MDR TB as high as the cure rate in the best hospitals of the US, and that it could be done for a fraction of the previously estimated cost, less than \$2000 per case. When these results were presented to WHO, the recommendation was changed to fully treat every type of TB, whether drug sensitive or resistant, wherever it occurred. This was a clear and important victory for global health equity.



REFLECTION

In this part, Dr. Kim and Dr. Rosenberg talk about how even the poorest nations can get access to advanced healthcare.

- Why was it so important to provide equitable treatment of MDR TB?
- Think back to Lesson 7, *The best decisions are based on the best science, but the best results also require strong leadership and management.* How do you think these concepts were critical in treating MDR TB and working towards equity?
- What projects have you been involved in that address equity?

“We cannot hold parts of our society back and expect the whole society to move forward.”

HELENE GAYLE

PART 9.3 STORY A - THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY: PROVIDING ACCESS TO MEDICINES AROUND THE WORLD.

Dr. Vas Narasimhan, CEO, Novartis

SITUATION: There are medicines that could save the lives of the 500,000 children who die from malaria each year. Most of these children live in the low-income countries of Sub-Saharan Africa. Novartis manufactures the drug, artemisinin-based combination therapy that is the standard of care for the treatment of *P. falciparum* malaria, the most deadly form of the disease. Although the global health community has for a long time been skeptical and wary of the private sector where profit was the driving force, Novartis happened to have a CEO who came from the field of global health and was inspired by the vision of global health equity.

Challenge: But neither these malaria-endemic countries nor WHO could afford to purchase commercially the amounts of this drug needed to treat the children who were at risk.

Solution: Therefore, Novartis signed an agreement with WHO, committing to make the antimalarial drugs available without profit to the public sector of malaria-endemic countries. Of the 1 billion treatments delivered, more than 430 million treatments are the pediatric formulation launched in 2009. This pediatric treatment has contributed to a significant reduction in malaria deaths in children: in 2010, a child died every 30 seconds from malaria and now it is estimated that a child dies every two minutes. Although this is a massive improvement, there is still a long way to go. Novartis was following the footsteps of other pharmaceutical companies that have played an important role in global health. This demonstrates an important role that the private sector can play in making access to life-saving medicines more equitable and how important it is that pharmaceutical companies keep coming up with new ways to make access more equitable.



REFLECTION

In this part, Dr. Narasimhan explains how Novartis contributes to global health equity by providing access to medicine around the world.

- What role can industry play in advancing health equity?
- What was it in Dr. Narasimhan’s past that influenced him to value global health equity?
- What tools besides drug donation programs might the private sector use to increase the equitable distribution of resources of other drug donation programs? How could they contribute to the more equitable distribution of human resources and intellectual resources?

“Injustice anywhere is a threat to justice everywhere.”

MARTIN LUTHER KING JR.

Summaries and Reflections for Each Part

PART 9.3 STORY B - THE BEST SOLUTIONS MOVE US CLOSER TO GLOBAL HEALTH EQUITY: THE ROOT CAUSE OF SOCIAL INEQUITIES.

Dr. David Satcher, 16th United States Surgeon General

SITUATION: We live in an environment where each of us is impacted by the health of others. The social determinants of health are the conditions under which we are born, grow, get educated and work. For example, some children live in places where there is no safe place to play and they do not get good nutrition. They may also lack access to quality education and good jobs. Racism and poverty also contribute to health inequities. These social determinants have a major impact on equity and can be major barriers to good health and well-being.

CHALLENGE: But policy makers are often looking for quick wins and simple solutions. They often don't have the patience necessary to understand and address complex issues like these social determinants of health.

SOLUTION: Therefore, if we are going to significantly reduce health disparities, we need to look beyond the healthcare system itself and develop policies that affect the social and political determinants of health. Once we understand the relationship between health disparities and the social determinants of health, we can target and change these underlying causes. Healthcare workers should be able to see that poverty, racism, and discrimination are part of their responsibility. When the interactions among them appear very complex and a change requires very long-term approaches, we should not back off from this task.



REFLECTION

In this part, Dr. Satcher discusses how the social determinants of health affect health equity.

- List 4 social determinants that affect health equity.
- Is it enough to focus on treating diseases if we want to reduce health disparities? Why or why not?
- What diseases are impacted by poverty? What health problems are affected by the social, political, and physical environment where someone lives?
- How do you think global health professionals can be supported in addressing these social determinants? Who should they be collaborating with?

“Health care is vital to all of us some of the time, but public health is vital to all of us all of the time.”

C. EVERETT KOOP



ADDITIONAL RESOURCES & DEEPER DIVES

- 9lessons.org/glossary
- [2000 Plenary address to the World Health Assembly by Bill Foege](#)
- [4 lessons from the life of global health visionary Paul Farmer](#)
 - **The values behind this Partners in Health co-founder's success.**
- [National Center for Civil and Human Rights](#), an institution that has put equity and the Campaign for Equal Dignity front and center
- *My Quest for Health Equity - Notes on Learning While Leading*—Dr. David Satcher
- *The Partners Report on MDR-TB Treatment: The message is hope.* The Task Force for Global Health, Decatur, GA, USA. 2015
- [Alma Ata Conference, 1978](#), Health For All
- An approach that says WHO and church missions should always concentrate on the most disenfranchised is explained in *Contact Magazine*, Issue 13.
- *David J. Sencer CDC Museum, Global Health Chronicles - Global Polio Eradication Initiative History Project - Interview with Bill Foege*
- *Global Health Ethics - A Framework for Thinking from Dr. Greg Martin:*
 - [Session 1](#)
 - [Session 2](#)
 - [Session 3](#)
 - [Session 4](#)
 - [Session 5](#)
- *Larry Gostin Global Health Security, A Blueprint for the Future.* Harvard University Press, 2021. <https://www.hup.harvard.edu/catalog>.

Deeper Dives

- Dr. Bill Foege shares his lessons on global health equity, how that has shaped his career and what it means for the current state of global the health and COVID-19 pandemic. Learn more here: [Bill Foege shares his lessons on global health equity – and unscrambling eggs](#)
- Expo2020 Dubai was a key moment for the international community to assess the impact of COVID-19 on health, societies, and economies. As we look forward and prioritize prevention, promoting equity is essential. Learn more here: [Event Summary: Preventing pandemics means investing in equity](#)
- Read more about smallpox eradication in this Global Health Delivery Project case study: ["Smallpox Eradication: a blueprint for future public health strategy."](#)
- Click here to access [teaching resources](#).

Use this space to note any questions you might have or things you want to research further.

BEGIN INTENTIONALLY

LESSON 1:

THIS IS A CAUSE & EFFECT WORLD.

LESSON 2:

KNOW, SHARE, & ACT ON THE TRUTH.

LESSON 3:

COALITIONS ARE ESSENTIAL.

BUILD RESPONSIBLY

LESSON 4:

AVOID CERTAINTY.

LESSON 5:

BUILD IN EVALUATION
& IMPROVEMENT.

LESSON 6:

RESPECT THE CULTURE.
CULTURE MATTERS.

DELIVER RELIABLY

LESSON 7:

SEEK STRONG LEADERSHIP
& MANAGEMENT.

LESSON 8:

MOBILIZE POLITICAL WILL.

LESSON 9:

MOVE TOWARDS GLOBAL
HEALTH EQUITY.



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