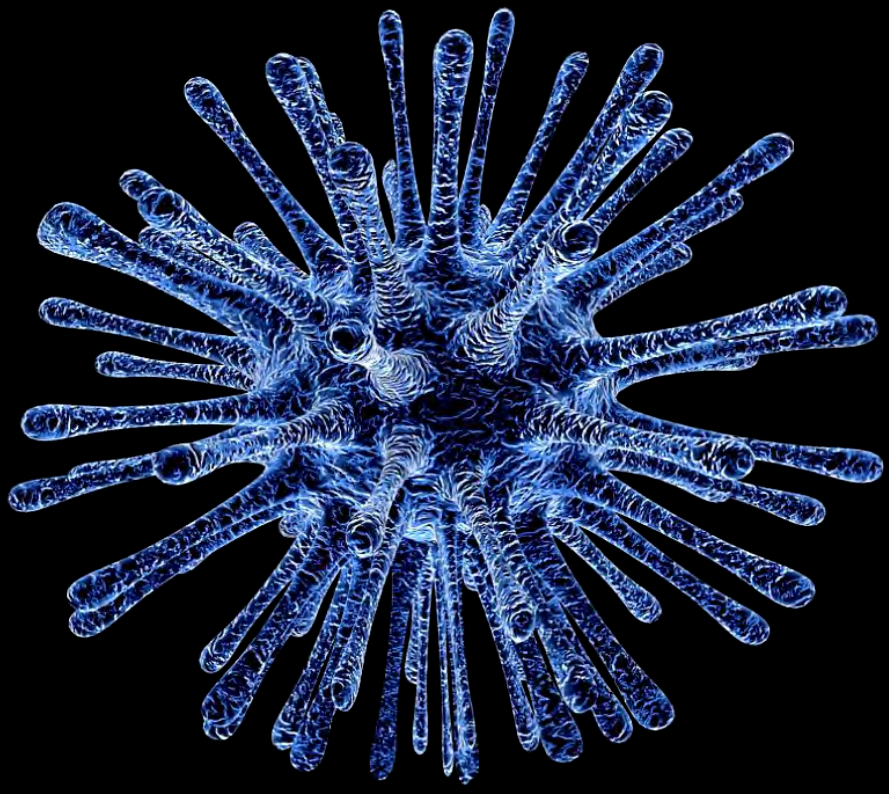
The SPARS Pandemic

2025 - 2028

A Futuristic Scenario for Public Health Risk Communicators



The Johns Hopkins Center for Health Security

Project Team

Monica Schoch-Spana, PhD
Senior Associate
Johns Hopkins Center for Health Security

Emily K. Brunson, PhD, MPH
Associate Professor
Texas State University

Tara Kirk Sell, PhD, MA
Senior Associate
Johns Hopkins Center for Health Security

Gigi Kwik Gronvall, PhD
Senior Associate
Johns Hopkins Center for Health Security

Matthew P. Shearer, MPH
Senior Analyst
Johns Hopkins Center for Health Security

Sanjana Ravi, MPH
Senior Analyst
Johns Hopkins Center for Health Security

Hannah Chandler
MPH Candidate
Columbia University

Recommended Citation

Schoch-Spana M, Brunson EK, Shearer MP, Ravi S, Sell TK, Chandler H, Gronvall GK. The SPARS Pandemic, 2025-2028: A Futuristic Scenario for Public Health Risk Communicators. Baltimore, MD: Johns Hopkins Center for Health Security; October 2017.



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

Center for Health Security

About the Johns Hopkins Center for Health Security

The Johns Hopkins Center for Health Security works to protect people from epidemics and disasters and build resilient communities through innovative scholarship, engagement, and research that strengthens the organizations, systems, policies, and programs essential to preventing and responding to public health crises. The Center is part of the Johns Hopkins Bloomberg School of Public Health and is located in Baltimore, MD.

Learn more at www.centerforhealthsecurity.org

Table of Contents

Preface

A Possible Future in 2025: The "Echo Chamber"....1

Response

Chapter One: The SPARS Outbreak Begins....4
Chapter Two: A Possible Cure....8
Chapter Three: A Potential Vaccine....11
Chapter Four: Users Beware....14
Chapter Five: Going Viral....19
Chapter Six: The Grass is Always Greener....23
Chapter Seven: The Voice....25
Chapter Eight: Are You Talking To Me?....29
Chapter Nine: Changing Horses Midstream....31
Chapter Ten: Head of the Line Privileges....34
Chapter Eleven: Standing in Line, Protesting Online....37
Chapter Twelve: Don't Put All Your Eggs in One Basket....40
Chapter Thirteen: Lovers and Haters....43
Chapter Fourteen: The Grass is Always Greener, Part II....49
Chapter Fifteen: Are You Talking to Me, Part II....52
Chapter Sixteen: Antibiotics, HO!....55

Recovery

Chapter Seventeen: Vaccine Injury....59
Chapter Eighteen: Acknowledging Loss....63
Chapter Nineteen: SPARS Aftermath....66

References & Appendices

References....67
Acronyms....68
Appendix A: Response Scenario Timeline....69
Appendix B: Response Scenario Communication Dilemmas....73
Appendix C: Recovery Scenario Timeline....75
Appendix D: Recovery Scenario Communication Dilemmas....76

Acknowledgements

The project team is grateful to Kunal Rambhia, Meredith Li-Vollmer, Shari Veil, Brad Smith, Rita Obey, Ji Sun Lee, and the members of the Expert Working Group on Medical Countermeasure (MCM) Communication Strategies for their contributions and feedback throughout the development process for this document.

Disclaimer

This is a hypothetical scenario designed to illustrate the public health risk communication challenges that could potentially emerge during a naturally occurring infectious disease outbreak requiring development and distribution of novel and/or investigational drugs, vaccines, therapeutics, or other medical countermeasures.

The infectious pathogen, medical countermeasures, characters, news media excerpts, social media posts, and government agency responses described herein are entirely fictional.



Preface



Possible Future in 2025: The "Echo Chamber"

Unbridled Global Access to Information Coupled with Social Fragmentation and Self-Affirming Worldviews

Scenario Purpose

The following narrative comprises a futuristic scenario that illustrates communication dilemmas concerning medical countermeasures (MCMs) that could plausibly emerge in the not-so-distant future. Its purpose is to prompt users, both individually and in discussion with others, to imagine the dynamic and oftentimes conflicted circumstances in which communication around emergency MCM development, distribution, and uptake takes place. While engaged with a rigorous simulated health emergency, scenario readers have the opportunity to mentally "rehearse" responses while also weighing the implications of their actions. At the same time, readers have a chance to consider what potential measures implemented in today's environment might avert comparable communication dilemmas or classes of dilemmas in the future.

Generation Purpose

This prospective scenario was developed through a combination of inductive and deductive approaches delineated by Ogilvy and Schwartz.[1]

The timeframe for the scenario (the years 2025-2028) was selected first, and then major socioeconomic, demographic, technological, and environmental trends likely to have emerged by that period were identified. Specifically, two dominant trends likely to influence regulatory and public responses to future public health emergencies were selected: one, varying degrees of access to information technology; and two, varying levels of fragmentation among populations along social, political, religious, ideological, and cultural lines. A scenario matrix was then constructed, illustrating four possible worlds shaped by these trends, with consideration given to both constant and unpredictable driving forces.

Ultimately, a world comprised of isolated and highly fragmented communities with widespread access to information technology—dubbed "the echo-chamber"—was selected as the future in which the prospective scenario would take place. From this point, scenario-specific storylines were then developed, drawing on subject matter expertise, historical accounts of past medical countermeasure crises, contemporary media reports, and scholarly literature in sociology, emergency preparedness, health education, and risk and crisis communication. These sources were used to identify communication challenges likely to emerge in future public health emergencies.

This prospective scenario is not intended to predict events to come; rather, it is meant to serve as a plausible narrative that illustrates a broad range of serious and frequently encountered challenges in the realm of risk and crisis communication.

Scenario Environment

In the year 2025, the world has become simultaneously more connected, yet more divided. Nearly universal access to wireless internet and new technology—including internet accessing technology (IAT): thin, flexible screens that can be temporarily attached to briefcases, backpacks, or clothing and used to stream content from the internet—has provided the means for readily sharing news and information. However, many have chosen to self-restrict the sources they turn to for information, often electing to interact only with those with whom they agree. This trend has increasingly isolated cliques from one another, making communication across and between these groups more and more difficult.

From a government standpoint, the current administration is led by President Randall Archer, who took office in January 2025. Archer served as Vice President under President Jaclyn Bennett (2020-2024), who did not seek a second term due to health concerns. The two remain close and Bennett acts as a close confidante and unofficial advisor to President Archer. The majority of President Archer's senior staff, including Department of Health and Human Services Secretary Dr. Cindra Nagel, are carryovers from Bennett's administration. At the time of the initial SPARS outbreak Nagel has served in this position for just over three years.

In regards to MCM communication more specifically, the US Department of Health and Human Services (HHS), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and other public health agencies have increasingly adopted a diverse range of

social media technologies, including long-existing platforms such as Facebook, Snapchat, and Twitter, as well as emerging platforms like ZapQ, a platform that enables users to aggregate and archive selected media content from other platforms and communicate with cloud-based social groups based on common interests and current events. Federal and state public health organizations have also developed agency-specific applications and ramped up efforts to maintain and update agency websites.

Challenging their technological grip, however, are the diversity of new information and media platforms and the speed with which the social media community evolves. Moreover, while technologically savvy and capable, these agencies still lag in terms of their "multilingual" skills, cultural competence, and ability to be present on all forms of social media. Additionally, these agencies face considerable budget constraints, which further complicate their efforts to expand their presence across the aforementioned platforms, increase social media literacy among their communication workforces, and improve public uptake of key messages.

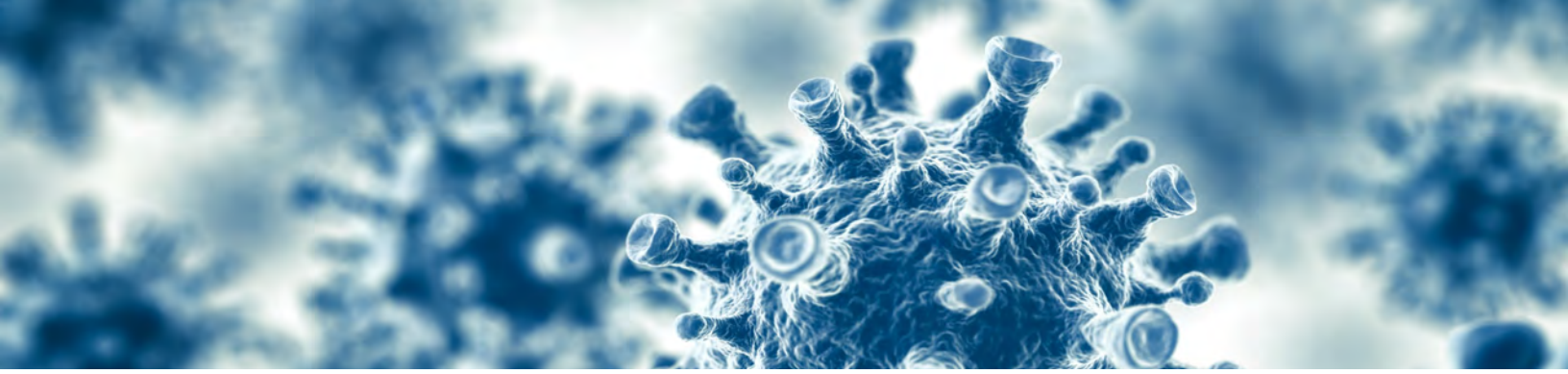
Scenario Organization & Use

This scenario was designed to illustrate the public health risk communication challenges associated with distribution of emergency medical countermeasures during an infectious disease pandemic. The story is organized chronologically, and each chapter concludes with a treatment of key communication dilemmas and corresponding discussion questions. Some questions are targeted towards challenges faced by risk communicators representing federal agencies, while others address issues more relevant to state and local risk communicators.

As such, users may find it most helpful to run the scenario as a tabletop exercise. Alternatively, if users prefer to examine select communication dilemmas rather than proceed chronologically through the entire scenario, they may refer to Appendices A-D, which contain the timelines for the response and recovery phases of the story, as well as indices of the communication dilemmas and their corresponding page numbers.



RESPONSE



The SPARS Outbreak Begins

Chapter One



THE ST. PAUL CHRONICLE

www.stpaulchronicle.org MINNESOTA'S FAVORITE NEWSPAPER October 17, 2025

Third Death in a Week Due to 'Unknown Illness' in Twin Cities

Sonja Dixon, 42, West St. Paul

Sonja Dixon, 42, of West St. Paul was admitted to Regions Hospital on October 15 with severe flu-like symptoms. When her laboratory test results came back negative for influenza and her condition continued to worsen, even with antiviral treatments, doctors raced to save her. Mrs. Dixon developed pneumonia and ultimately died late in the evening on October 19.

Her family was not available for comment, but Reverend Reginald Moore of the First Baptist Church of St. Paul expressed his condolences. "We're praying for Sonja's family and loved ones. This has been a difficult flu season already for our community, but we are continuing to support each other," said Reverend Moore, referring to the deaths of Mary Gold, 67, and Arnold Simpson, 74, two other members of his congregation who passed away from influenza-related complications the week prior.

The deaths of all three victims are now under investigation by public health authorities. St. Paul-Ramsey County and Dakota County Public Health Departments are coordinating closely with their respective Medical Examiners to identify possible links between the victims.

In mid-October 2025, three deaths were reported among members of the First Baptist Church of St. Paul, Minnesota. Two of the church members had recently returned from a missionary trip to the Philippines, where they provided relief to victims of regional floods. The third was the mother of a church member who had also traveled to the Philippines with the church group but who had been only mildly sick himself. Based on the patients' reported symptoms, healthcare providers initially guessed that they had died from seasonal influenza, which health officials predicted would be particularly virulent and widespread that fall. However, laboratory tests were negative for influenza. Unable to identify the causative agent, officials at the Minnesota Department of Health's Public Health Labora-

tory sent the patients' clinical specimens to the Centers for Disease Control and Prevention (CDC), where scientists confirmed that the patients did not have influenza. One CDC scientist recalled reading a recent ProMed dispatch describing the emergence of a novel coronavirus in Southeast Asia, and ran a pancoronavirus RT-PCR test. A week later, the CDC team confirmed that the three patients were, in fact, infected with a novel coronavirus, which was dubbed the St. Paul Acute Respiratory Syndrome Coronavirus (SPARS-CoV, or SPARS), after the city where the first cluster of cases had been identified.



The CDC monitored the situation closely, working with partners in Southeast Asia to quickly develop a case definition for SPARS. Within four weeks of CDC publishing a working case definition on its website, nearly two hundred suspected cases of SPARS were reported across Minnesota and in six other states. Given that flu season was just getting underway and that a rapid diagnostic test for SPARS-CoV infection was not yet available, CDC officials could not be sure if these were, in fact, true cases of SPARS. Nevertheless, on November 17, HHS Secretary Dr. Cindra Nagel notified the World Health Organization (WHO) about the US cluster of SPARS cases, concerned that the outbreak might constitute a Public Health Emergency of International Concern (PHEIC).

As transmission of SPARS was determined to occur via droplet spread, the CDC initially recommended that everyone diligently maintain hand hygiene and frequently disinfect potentially contaminated surfaces. CDC officials further urged anyone with severe flu-like symptoms to seek immediate medical attention. Public health officials were concerned that the upcoming Thanksgiving holiday and Black Friday shopping activities would facilitate the spread of SPARS, but they remained confident that the aware-

ness and prevention messages disseminated annually for seasonal influenza, combined with isolation procedures for suspected cases, would be effective at countering the spread of SPARS. These messages were spread via a variety of traditional and social media sources, including Facebook, Instagram, Reddit, Twitter, and ZapQ.

Concern among many Americans about the severity of SPARS at this point in the outbreak was moderately high. The public's concern was compounded by the apparent virulence of the pathogen. At the outset of the SPARS outbreak, physicians' understanding of the disease stemmed primarily from extremely severe cases resulting in pneumonia or hypoxia that required hospitalization and extensive medical treatment. Mild cases of the disease, which produced symptoms including cough, fever, headaches, and malaise, were often perceived as the flu by the people who had them and consequently often went untreated and undiagnosed by medical personnel. As a result, early case fatality estimates were inflated. By late November, the CDC reported an initial estimated SPARS case fatality rate of 4.7% (By contrast, WHO reported that the overall case fatality rate for SARS was 14-15% and over 50% for people over the age of 64. Later in the SPARS outbreak, data that included more accurate estimates of mild SPARS cases indicated a case fatality rate of only 0.6%).

Two additional features of the SPARS virus that were not appreciated at the beginning of the pandemic, but that impacted how the outbreak played out, are also important to consider in a review of this event. First, the virus had an extended incubation period (seven to ten days) compared to its latent period (four to five days). Thus, infected persons could spread the virus for up to nearly a week before showing symptoms of the disease themselves. As a result, isolating sick SPARS patients proved to be less effective than isolating patients infected by other, better-characterized respiratory diseases. Second, morbidity and mortality from SPARS were both significantly higher in children than adults. Pregnant women and those with chronic respiratory conditions like asthma and emphysema were also at a higher risk for both disease complications and death.

COMMUNICATION DILEMMA

Engendering Public Trust and a
Sense of Self-Efficacy When a Crisis is Still Evolving
and Health Information is Incomplete

FOOD FOR THOUGHT

1) How can health authorities best meet public demands for critical information, such as, "What is the health threat?" and "What do I know about it?" when the crisis is still unfolding and not all the facts are known?

2) What benefits does monitoring trends in social media postings confer on efforts to meet people's information needs during an evolving health crisis?

3) What medical and morale-boosting purposes does sharing information about self-protective actions (eg, infection control measures) serve for the public during an uncertain and fear-instilling situation?



A Possible Cure

Chapter Two

HAN
HEALTH ALERT NETWORK

This is an official CDC HEALTH ADVISORY

Distributed via the CDC Health Alert Network
December 15, 2025, 13:00 ET (1:00 PM ET)
CDCHAN-00528

Summary

The Centers for Disease Control and Prevention (CDC) and state health departments are investigating the emergence of the St. Paul Acute Respiratory Syndrome Coronavirus (SPARS-CoV), now reported in 26 states and several other countries. The purpose of this HAN Advisory is to update public health departments and healthcare facilities about this epidemic and to provide guidance to healthcare providers. At this time, the FDA and NIH are evaluating potential treatment options. Evidence indicates that antiviral pharmaceuticals may provide benefit. Based on previous trials in other coronavirus patients, the antiviral Kalocivir is the leading candidate; however, neither the efficacy nor safety profile has been determined for SPARS cases. Further guidance regarding personal protective equipment (PPE) and clinical care protocols are delineated below.

Early in the SPARS pandemic, public health and medical professionals were hopeful that the outbreak could be contained through case identification and isolation. It quickly became clear, however, that this strategy was not as effective as initially hoped. First, challenges in identifying mild cases limited the impact of isolation programs. Because the initial symptoms of SPARS closely resembled influenza, many who contracted SPARS did not immediately seek care, assuming they merely had the flu. Fortunately, some who thought they had the flu chose to isolate themselves at home, thereby prevent-

ing the spread of SPARS outside their households. Over the Thanksgiving holiday and Black Friday, however, fewer infected persons remained home, thereby enabling the spread of SPARS beyond the Midwest. Second, SPARS transmission was accelerated by infectious individuals who had not yet become symptomatic. Together, these factors led to significant spikes in the number of reported cases.

By mid-December, SPARS cases were reported in 26 states, and the Ministries of Health in Mexico, Canada, Brazil, Japan, and several European countries had notified the WHO of dozens of imported cases. There was widespread concern in public health circles that travel over the Christmas and New Year's holidays would spark a global pandemic. The WHO, which had declared the SPARS epidemic to be a PHEIC on November 25, was actively engaged in preventing further spread of the disease internationally. However, the WHO's efforts promoted interventions originally designed for influenza and other similar respiratory pathogens, such as hygiene, social distancing, and isolation of suspected cases, all of which were less effective against SPARS.

The CDC initially followed a similar strategy. The spike in cases in November and December, however, led to increasing public concern about the disease. By late December, public concern about SPARS in the United States was extremely high, and there was intense public pressure to identify treatments for the disease.

At that time, no treatment or vaccine for SPARS was approved for use in humans. The antiviral Kalocivir, which was initially developed as a therapeutic for Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), was one of several antiviral drugs authorized in the United States by the FDA to treat a handful of severe SPARS cases under its Expanded Access protocol. Kalocivir had shown some evidence of efficacy against other coronaviruses, and a small inventory of the drug was already a part of the Strategic National Stockpile (SNS) in anticipation of FDA approval, despite some concerns about potential adverse side effects. The lack of concrete information regarding potential treatments in the face of the increasingly rapid spread of SPARS prompted demands from the media, the public, and political leaders for the FDA to be more forthcoming with information on potential treatment options.

COMMUNICATION DILEMMA

Responding to Public and Political Pressure to Share Information about Potential MCMs in the Development Pipeline Even Though Information May be Incomplete or Proprietary

FOOD FOR THOUGHT

1) What risks do public health agencies face if the public, media, and/or political leaders feel that information about potential treatment options is being withheld?

2) What kinds of outreach could public health agencies perform in advance of a crisis to mitigate any perceived lack of transparency? If such a perception emerges in the crisis, then how might it be defused?



A Potential Vaccine

Chapter Three

GMI

MEMORANDUM

TO: Gretta Smithson, Vice-President for Animal Health
FROM: Dr. Marcus Thompson, Director, Vaccination Research Branch
RE: Hooved Mammal Respiratory Virus Vaccine Number 14 (HMRV-vac14) Use in Human Populations
DATE: December 30, 2025
ATTACHMENTS:
1. HMRV-vac14 Efficacy and Side Effects
2. Hoofed Mammal Respiratory Coronavirus Outbreak Model Estimates (2021)

PROBLEM BACKGROUND

Your office requested information regarding any previous SPARS-like illness in GMI animal populations and potential immunization or treatment implications for the ongoing SPARS pandemic.

SUMMARY

In 2021, a coronavirus caused an outbreak in Region 7 (Southeast Asia) hoofed mammal populations. Our researchers developed and produced in-house an effective vaccine against the infection (HMRV-vac14). Its subsequent approval and use successfully ended the outbreak in the region. While largely effective in preventing infection, severe side effects—including swollen legs; severe joint pain; and encephalitis potentially resulting in seizures, seizure disorders or death—occasionally occurred (Attachment 1). Given the millions of vaccinations required for Region 7, this resulted in measurable losses to the animal population; however, these were acceptable compared to those from the respiratory infection itself (Attachment 2). Each of the severe side effects was accompanied by physical presentation such that the affected animal was removed from the population and culled to prevent processing affected animals for sale.

It is unknown at this time how similar the two coronaviruses are or whether HMRV-vac14 (or a similar vaccine) would be effective in human populations. Due to its development for internal use only, HMRV-vac14 has not been tested or authorized by any governing agency for use in animals or humans.

Shortly after authorizing expanded access to Kalocivir for select patients, the FDA received reports of an animal vaccine developed by GMI, a multinational livestock conglomerate operating cattle and pig farms in, among other places, Southeast Asia. Since 2021, ranchers had been using the vaccine to prevent a SPARS-like respiratory coronavirus disease in cows and pigs in the Philippines and other Southeast Asian countries. Data provided by GMI suggested that the vaccine was effective at preventing SPARS-like illnesses in cows, pigs, and other hooved mammals, but internal trials revealed several worrisome side effects, including swollen legs, severe joint pain, and encephalitis leading to seizures or death. Because any animals experiencing these side effects were immediately killed, and because animals were typically slaughtered within a year of vaccination, further information regarding the short- and long-term effects of the GMI vaccine was unavailable.

Lacking a viable alternative—and considering the potentially high morbidity and mortality associated with SPARS (at the time the case fatality rate was still considered to be 4.7%)—the United States government contacted GMI in regards to the vaccine. After laboratory tests confirmed that the coronavirus affecting livestock in Southeast Asia was closely related to SPARS-CoV, the US began an extensive review of GMI's animal vaccine development and testing processes. Shortly thereafter, federal health authorities awarded a contract to CynBio, a US-based pharmaceutical company, to develop a SPARS vaccine based on the GMI model. The contract included requirements for safety testing, ensuring the vaccine would be safe and effective for human use. It also provided considerable funding from the National Institutes of Health (NIH) and included provisions for priority review by the FDA. Additionally, HHS Secretary Nagel agreed in principle to invoke the Public Readiness and Emergency Preparedness Act (PREP Act), thereby providing liability protection for CynBio and future vaccine providers in the event that vaccine recipients experienced any adverse effects.

COMMUNICATION DILEMMA

Maintaining Trust in Government Processes for Ensuring the Timely Development of Safe and Effective Vaccines When Novel Threats Arise

FOOD FOR THOUGHT

1) How might federal health authorities avoid people possibly seeing an expedited SPARS vaccine development and testing process as somehow "rushed" and inherently flawed, even though that process still meets the same safety and efficacy standards as any other vaccine?

2) How might federal health authorities respond to critics who propose that liability protection for SPARS vaccine manufacturers jeopardizes individual freedom and wellbeing?

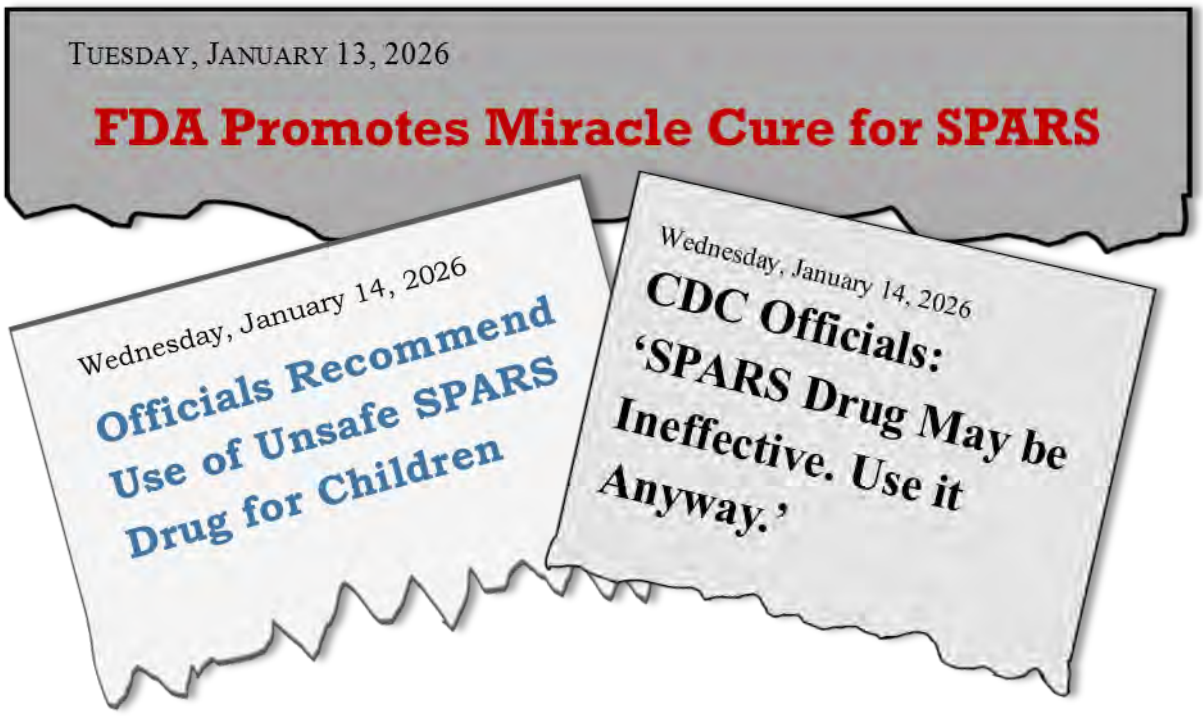
3) Once the vaccine becomes broadly available (see the chapter, "Head of the Line Privileges"), how might public health communicators implement the "best practices" principle of enabling people to make their own informed decisions about whether to accept the novel SPARS vaccine?

4) What are the potential consequences of health officials over-reassuring the public about the potential risks of a novel SPARS vaccine when long-term effects are not yet known?



Users Beware

Chapter Four



Following limited evidence of success in treating SPARS patients with Kalocivir, the FDA issued an Emergency Use Authorization (EUA) for this drug as a SPARS therapeutic in the United States. While Kalocivir had a positive impact against SPARS, preliminary data indicated it also caused intense stomach cramping in a statistically significant number of adult cases. Additionally, while initial hopes had been that Kalocivir would, in addition to treating the disease, prevent or reduce transmission, this was not the case. Nevertheless, due to high public demand for access to viable SPARS treatments, public health and healthcare agencies drew from existing SNS inventories of Kalocivir (several million doses) until further production of the drug could begin.

Official announcements about the use of Kalocivir to treat SPARS were made in early January 2026. Although extensive interagency efforts were made to coordinate messages, slight differences were emphasized by the media, leading to the appearance of diverging messages. The FDA, for example, explained that Kalocivir was being authorized under emergency use protocols as a treatment for SPARS and recommended that healthcare providers and other interested persons review the FDA-approved drug insert, which included information about potential side effects. The CDC's announcement contained similar information, but when a CDC spokesperson was asked direct questions on air, he explained the preliminary nature of the Kalocivir trials and stressed that the efficacy of the drug against SPARS remained unknown. The NIH announcement, meanwhile, also echoed the FDA announcement, but when the NIH spokesperson appeared on a widely viewed interview on a popular morning news show, the interviewer focused primarily on the possible benefits of Kalocivir for adults only.

In addition to the government agencies' official channels of communication, messages about Kalocivir were also distributed by national and local media organizations. Depending on the particular government source(s) these news agencies used, their reports differed slightly. When these messages were, in turn, shared via social media, they continued to diverge. Some individuals on social media, citing the CDC spokesperson's interview, claimed that Kalocivir had not been thoroughly tested and was potentially unsafe. Others, citing parts of the CDC and NIH announcements, incorrectly claimed that while Kalocivir was safe for adults, it was possibly unsafe for children. Yet others wondered why the drug was not being administered preventatively to the entire US population. Because little actual data on the safety and efficacy of Kalocivir existed at the time, government agencies had a difficult time responding to the ever-diverging public responses on social media.

After Kalocivir was in public use for three months, the FDA was able to release updated information about the drug's effectiveness and the incidence of side effects. This information came too late, however, for large portions of the general public. In Wisconsin, where many individuals were treated with Kalocivir, local citizens posted, Tweeted, chatted, and Zapped real-time impressions of the drug. While some claimed the drug was effective and even life-saving, most reported no effect and claimed that the drug had caused additional side effects, such as headaches, nausea, and body aches. The social media reports of these side effects were so ubiquitous in the Milwaukee area that local news reporters

openly questioned the FDA's updated safety information, with one reporter even asking live on air if the FDA even knew what side effects were. In Lawrence, Kansas, on the other hand, local media—again using social media responses as a source—focused on how successful Kalocivir was at treating SPARS.

By late January 2026, the WHO reported sustained transmission of SPARS in 42 countries across the globe. The disease proved to be particularly devastating in low-income countries where weak health systems, malnourishment, and co-infections greatly exacerbated the impacts of SPARS. In the United States, the situation was much less dire, but public concern about SPARS remained high. This anxiety resulted in extensive use of Kalocivir across the country and led many citizens to actively seek out medical attention for even minor SPARS-like symptoms. Though taxing for local hospitals and clinics, increased self-reporting of SPARS-like symptoms provided data that clarified certain epidemiological features of the disease. The CDC published analyses of this data, which indicated a much lower case fatality rate of 1.1%, compared to the initial 4.7% estimate. While this information was a relief to public health officials, it did little to quell public concern.

In addition, not all members of the public responded to the SPARS in the same way. Small groups of individuals spread throughout the country, for example, who felt that natural cures such as garlic and vitamins would be more effective at treating SPARS than an "untested" drug, were much less likely to accept Kalocivir as a treatment option or even seek medical attention for SPARS-like symptoms. Similarly, some ethnic minorities, and particularly ethnic groups who lived close together in large, tight-knit communities, also rejected Kalocivir.

Some of this resistance—particularly among select ethnic minority groups—was attributable to questionable messaging on the part of public health agencies. While news reports and press releases were provided in multiple languages, not all of the messages were culturally appropriate for the populations receiving them. One of the best examples of this occurred among the Navajo tribe in the southwestern United States.

In early February 2026, the newly instated director of the Navajo Area Indian Health Service (NAIHS) took messaging provided by the CDC and modified this so it was more fear-based. His methods

included taking the tagline from a CDC message — "See your health care provider if you experience SPARS-like symptoms"—and adding the phrase "SPARS can kill you" at the end. While the intent of the director was to increase the number of Navajo seeking treatment for SPARS, the modified message, which was widely distributed throughout tribal areas, backfired. Fewer Navajo came forward in the following weeks for treatment from the NAIHS for SPARS-like symptoms. Sensing a mistake had been made, the director reached out to tribal leadership. After intensive dialog the messaging of the NAIHS was changed to reflect Navajo beliefs in sustaining life and eschewing a focus on death. Specifically, the fear-based messaging was replaced with positive messages including "Seeing health care providers for SPARS-like symptoms can help you and your family members live long and happy lives."

Due to the variation in local responses to Kalocivir and persisting anxiety around the outbreak itself, local public health agencies actively tried to address controversies and coordinate public health outreach with local populations. While many of these local public health outreach efforts successfully increased compliance with recommended health actions, they were not effective at reaching some special interest groups, including the growing national anti-Kalocivir/natural medicine movement, which was dispersed across the country and not concentrated in local areas.

COMMUNICATION DILEMMA

Harmonizing Inconsistent Messaging Across Health Agencies

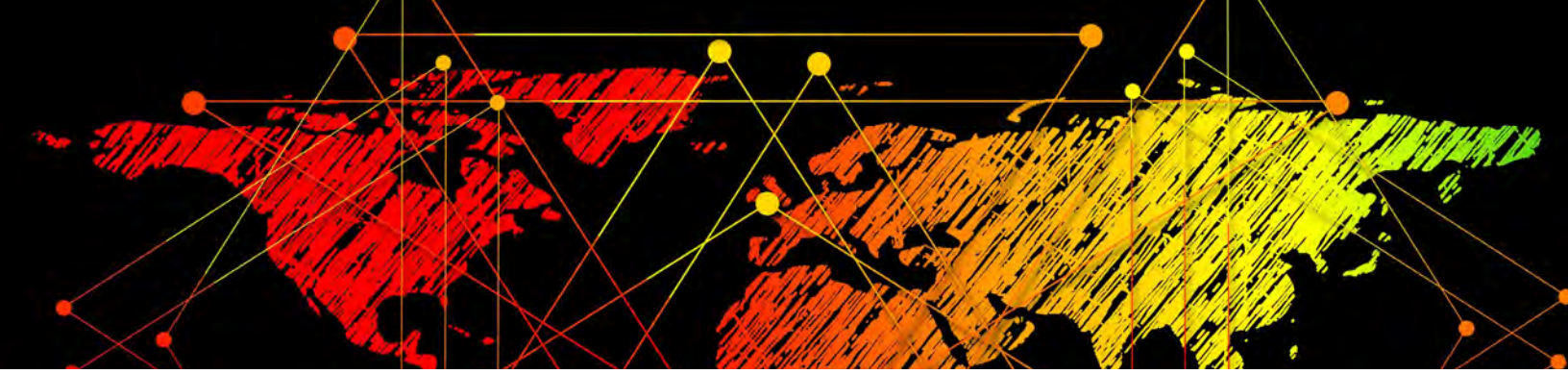
Appropriately Tailoring Public Health Messages to Address the Concerns and Cultures of Specific Communities

FOOD FOR THOUGHT

1) How could pre-crisis partnerships and alliances have averted the potential for inconsistent messaging around Kalocivir safety and efficacy? What are the potential effects of unaligned official messages about MCM safety and efficacy?

2) How could social media have been used to supplement traditional methods of collecting data about Kalocivir's effectiveness and side effects?

3) What is the difference between word-for-word translation and culturally competent MCM messages? What are the potential social and public health impacts of failures to deliver culturally competent MCM guidance?



Going Viral

Chapter Five

Reports of negative side effects associated with Kalocivir began gaining traction in February 2026. Despite the negative response, public health agencies continued to make progress until February, when a video of a three-year-old boy in North Carolina — who was hospitalized with SPARS and began projectile vomiting immediately after taking a dose of Kalocivir — went viral. In the video clip, the boy's physician administers a pediatric dose of liquid Kalocivir; a few moments later, the boy begins vomiting profusely, chokes, and then faints while his mother shrieks in the background.



This clip was widely shared across the United States with a variety of captions including *#NoKalocivir* and *#NaturalIsBetter*. The hashtags, in turn, provided a way for people sharing these views to find one another and band together on social media. They formed ZapQ and other online discussion groups, which allowed them to receive any messages from group members via smart phones and internet accessing technology (IAT) instantaneously as they were posted. Some members of these ZapQ groups even began to use full-sized (12"x12") IAT screens on backs of their jackets, coats, and backpacks to loop the vomiting video for all in their immediate vicinity to see.

The social media groundswell quickly overwhelmed the capacity of local, state, and federal agencies to respond, and compliance with public health and medical recommendations dropped considerably. The

FDA and other government agencies quickly attempted to remind the public that correlation does not equate to causation, and that vomiting was not a known side effect of Kalocivir. This message, while scientifically accurate, lacked appropriate empathy and failed to assuage the public's mounting fears. As a result, it was largely ignored, and public concern continued to grow.



In the following weeks, officials from the FDA, CDC, and other government organizations attempted to promote positive, accurate information about Kalocivir on several traditional and social media platforms in order to quell public fear. This messaging, however, was less than optimal both in terms of timing and dissemination. While the government took several days to provide an emotionally appropriate message, the spread of the viral video on social media was exponentially faster. By the time the government responded, most people across the country had already seen the vomiting video and formed their own conclusions. Additionally, in their responses, governmental organizations were not able to effectively access all social media platforms. ZapQ groups, for example, had closed memberships and typically could only be accessed via invitations from group members.

Both of these issues prompted government organizations to improve the timing and impact of their social media responses. While most government agencies including the CDC and HHS had long-established offices that were directed to coordinate social media and other communication efforts, the protocols of individual agencies and different agency cultures led to delayed and sometimes uncoordinated messages. Compounding this situation was the social media outreach conducted by individual members of the government. Several members of Congress were very active on sites like Twitter where they could leverage their office to spread their own personal beliefs under the guise of public positions.

In late May, one of these individuals, a former doctor and current Senator from Iowa, responded to a second vomiting video by tweeting, "Don't be buffoons! Kalocivir is 100% safe and 100% effective. Correlation does NOT equal Causation!" After being shared tens of thousands of times, the tweet was

picked up by traditional media outlets. This led to multiple awkward news interviews with FDA and CDC officials who had to clarify that while the sentiment of the message was correct, Kalocivir did have potential side effects and was not completely effective at treating SPARS.

Despite the many outreach efforts by various government officials and entities, the government was ultimately unable to develop a suitable response to the initial vomiting video. By early June 2026, the video had become the most shared Zap clip among junior high and high school students across the country who appreciated the shock factor of the video. As a result, the public was continually re-exposed to the anti-Kalocivir message for several months after the initial incident and subsequent responses.

COMMUNICATION DILEMMA

Responding to the Power of
Graphic Images of a Child in Distress:
One Story is Elevated to a Population-Level Problem

FOOD FOR THOUGHT

1) Why might communicating the science around MCM adverse effects alone not be enough to address the public's fears and concerns about a MCM like Kalocivir? Why is it also important to communicate with compassion, concern, and empathy?

2) To what extent is having sufficiently skilled staff and organizational capacity to communicate via traditional media and social media platforms critical to influencing public debates and awareness about a MCM like Kalocivir?

3) What MCM communication challenges and opportunities are likely to emerge among up-and-coming youth audiences who are avid consumers of interactive and visual forms of information?



The Grass is Always Greener

Chapter Six

As confidence in Kalocivir continued to deteriorate across the United States, the United Kingdom and the European Union jointly announced authorization for another antiviral treatment. In early March 2026, the UK Medicines and Healthcare Products Regulatory Agency and the European Medicines Agency authorized the emergency use of a new antiviral, VMax, to treat SPARS. VMax had been considered in the United States, but a drug trial conducted at the beginning of the SPARS outbreak did not show evidence of efficacy. Despite the authorization and promotion of VMax in Europe, the FDA, CDC and other US governmental agencies opted to focus their efforts on supplying and distributing Kalocivir and developing a vaccine based on the GMI model.



Social media posts from the United Kingdom and several European countries alerted many individuals in the United States to the existence and purported benefits of VMax. The authorization announcement was also distributed via all major American media outlets and quickly spread via social media.

As Europeans began receiving VMax, they reported their outcomes, good and bad, on a number of social media platforms. This persistent social media buzz around the pandemic ensured that public anxiety remained high — even though the incidence of new SPARS cases had begun to taper off. While the efficacy and side effect posts regarding VMax were largely similar to those for Kalocivir in the United States, some Americans sought to order prescriptions of VMax online, and others traveled to Europe to obtain the drug.





COMMUNICATION DILEMMA

Responding to Demand for an Alternative Drug
Not Available in the United States

FOOD FOR THOUGHT

1) How might pre-tested messages comparing US and foreign MCM review processes have enabled the US FDA and US CDC to support the USG decision to promote Kalocivir as the antiviral of choice?

2) What responsibility, if any, does the FDA have to advise Americans to avoid using VMax? How can the FDA and other public health entities best support the public when making informed MCM choices to protect their health?

4) How should local public health and healthcare providers address patients' questions about the risks and benefits of foreign MCMs?



The Voice

Chapter Seven

By May 2026, public interest in SPARS had begun to wane. In late April the CDC had publicized an updated case fatality rate estimate, suggesting the SPARS was only fatal in 0.6% of cases in the United States (where access to medical treatment was available). This figure matched public sentiment, widely expressed on social media, that SPARS was not as dangerous as initially thought. Combined with persisting doubts about Kalocivir and the lack of a commercially available SPARS vaccine, the new, lower case fatality rate estimate led the public to grow increasingly hostile toward continued SPARS messaging.

In order to overcome the public's disinterest, the CDC and FDA, in concert with other government agencies and their social media experts, began developing a new public health messaging campaign about SPARS, Kalocivir, and the forthcoming vaccine, Corovax. The purpose of this campaign was to create a core set of messages that could be shared by all public health and government agencies over the next several months during which time the SPARS vaccine would be introduced. Even though the disease was less fatal than initially thought, it remained expensive to treat in its severe form and even mild cases had substantial impacts on economic productivity across the country.

In late May, three messages were approved by the cross-agency committee established to produce the messaging campaign: one addressing the nature and risks of SPARS, one regarding the effectiveness of Kalocivir, and one about the anticipated release of Corovax. These messages were broadly shared via all relevant government agencies' internet and social media accounts. In an effort to further reach certain population subgroups, agency officials enlisted the help of well-known scientists, celebrities, and government officials to make short videos and Zap clips and, in a few cases, give interviews to major media outlets. Among those chosen were former President Jaclyn Bennett; BZee, a popular hip-hop star; and Paul Farmer, co-founder of Partners in Health and a renowned global health expert.

The campaign produced mixed results. Common messaging did reduce public confusion, evinced by a 15-23% increase in the public's correct understanding of SPARS and Kalocivir in national polls. While common messaging resulted in more cohesive traditional media coverage, the celebrity outreach campaign was more problematic.



BZee's original Zap clip was widely shared, particularly among African American and urban populations; however, in an interview aired on Access Hollywood during which he was asked about the accelerated clinical trials for Corovax, BZee noted his admiration for those who volunteered to participate in the trials, and then compared these recent volunteers to volunteers in previous health-related studies "including the men who volunteered at Tuskegee." The resulting backlash, particularly from African Americans, undermined the effectiveness of BZee's efforts.

Not long after, 60 Minutes aired a live, nationally broadcast interview with former President Bennett. When asked if she would want her new grandson to receive Kalocivir, Bennett, caught off-guard, paused and eventually gave a hesitant, somewhat contradictory response: "Well, I – experts say the drug is safe. And it's not easy, but I think…Everyone should make the decision that's best for their family." Video clips from this interview were shared widely on social media and by traditional media outlets, leading many healthcare professionals and members of the public to criticize Bennett for not taking a strong stance in support of Kalocivir.

The aftermath of the interview, however, did galvanize many House and Senate Republicans to support Kalocivir use in earnest in an effort to demonstrate their opposition to from the former Democratic President.

COMMUNICATION DILEMMA

Responding to Misinformation or Doubt about an MCM Generated by a Prominent Public Figure

FOOD FOR THOUGHT

Given the ability of powerful, popular figures to reinforce or to undermine public health messages, what steps might health authorities—at either national or local levels—take to reverse the negative effects of BZee's unintended linkage of Tuskegee and Corovax, or Bennett's tepid, uncertain support for Kalocivir?



Are You Talking to Me?

Chapter Eight

While government agencies were spreading the newly tooled public health messages about SPARS, Kalocivir, and Corovax through a variety of traditional and social media outlets, several popular platforms were overlooked. A notable example was UNEQL, a social media interface used at the time almost exclusively by college students. UNEQL was designed and first used at the University of California Berkeley in 2023. The initial purpose of the interface was to provide undergraduate college students with a common forum to collectively critique local, national, and international social and economic policies such as anti-immigration laws and drug policies. By 2026, the interface still maintained a critical focus but had expanded to include an underground news reporting system, led by seven primary "reporters" across the country; a satirical news feed that could be streamed as a caption on any program running on IAT; and special interest message boards accessible to anyone. While UNEQL was the primary news source of many college students on the east and west coasts, its existence and particularly its prominence was largely unknown outside of college communities and completely ignored by most public health agencies.

The SPARS pandemic and concerns about the disease prompted a sizeable response on UNEQL. While information shared about SPARS closely followed the information provided by the CDC, FDA, and other agencies, information about Kalocivir was often incorrect. Multiple message board threads questioned, in detail, the accelerated clinical trial process; others examined alternative treatments for SPARS, including VMax; and the second most popular "reporter," StanfordGY, led discussions on and organized protests against how Kalocivir was being administered, particularly focusing on how a lack of access to primary care could result in unequal access to the drug. By late May, opinion polls on UNEQL showed that 68 percent of the interface's two million users felt that equal access to medical care for SPARS was a serious issue. In an effort to galvanize political will around this issue, students began using UNEQL forums to organize and promote protests outside the offices of state and local political leaders.

COMMUNICATION DILEMMA

Overlooking Communication Platforms Used by Specific Groups; Quickly Gaining Fluency and Effectively Engaging the Public Using a New Media Platform

Responding to Public Criticism About Potential Unequal Access to MCMs Like Kalocivir

FOOD FOR THOUGHT

1) What are the roles of a media-literate staff and organizational capacity to communicate via both social and traditional media platforms critical to understanding and influencing public debates about an MCM like Kalocivir?

2) Why is it important to listen to the public during the emergency to find out what they think or want done about equity in access to a MCM like Kalocivir? How might the public's desire for fairness in allocating Kalocivir ultimately influence public health outcomes?

3) How could authorities—at national and local levels—craft an effective response to public criticism and concern about unequal access to Kalocivir? How might the emergency communication principles of speaking honestly and openly and acknowledging the human dimension of the problem be applied in this instance?



Changing Horses Midstream

Chapter Nine

THE
HOLLYWOOD TRIBUNE

June 23, 2026 — *WORLD EXCLUSIVES*

USG Wasted Millions on Suspect Science for Useless SPARS Drugs

Since the onset of the SPARS pandemic, the federal government has reportedly spent tens of millions of taxpayer dollars in support of SPARS therapeutics that were recently found to be wholly ineffective. In yesterday's White House press conference—held jointly by President Archer, Secretary Nagel of HHS, Surgeon General Barry, and an array of other federal public health and medical officials—President Archer praised the Food and Drug Administration for their forthright release of new efficacy data for Kalocivir. Conversely, many in Congress and the general public are viewing the drug, now thought to be ineffective, as a classic example of the perils of the federal medical bureaucratic machine…

The federal government is known to have funneled funding for the development of Kalocivir through the National Institutes of Health and the Biomedical Advanced Research and Development Authority, and the FDA is alleged to have supported and approved Kalocivir in clinical trials due to the considerable federal investment rather than the merits of the product. The corruption evident through this gross misappropriation of funding and other resources is indicative of the leadership and overreach that we have come to expect from the Archer Administration. If the flagrant misrepresentation of Kalocivir's effects is any indication of current standards at the FDA, what confidence should we have in other recent approvals, particularly the highly anticipated SPARS vaccine, Corovax?

In mid-June 2026, Laso Therapeutics, the sponsor for Kalocivir's clinical trials, released data from a large randomized controlled trial (RCT). The new data suggested that Kalocivir was less effective at treating SPARS than initially thought and was, in fact, on par with Ribavirin and VMax, both of which showed low efficacy as SPARS treatments. These results led the FDA to conclude that all currently available drugs were only minimally effective at treating SPARS. In response, the CDC suggested that

healthcare providers continue to provide palliative care to SPARS patients and that, if necessary, patients with more mild cases could use over-the-counter medications to alleviate symptoms. Ultimately, this left providers to address patient concerns and demands on their own, which proved frustrating for them and many of their patients.

On a positive note, however, the new data also suggested that the side effects associated with Kalocivir were milder than initially reported. Among adults and children receiving pediatric does, only mild stomach irritation was now associated with Kalocivir use.

Immediately following the release of the RCT data, current US President Archer, HHS Secretary Nagel, officials from other government organizations, and scientists across the country publicly praised the FDA and CDC for their responses and updated guidelines. The response on social media, however, was largely negative. Citing the vomiting video, reports about VMax from Europe, and the communication blunders made by President Bennett and BZee, citizens across the country took to Twitter, Facebook, Tumblr, Vine, and ZapQ to assert that the changing messages merely proved that scientists knew very little about how to deal with SPARS. Common social media messages shared during this time included #FakeScience and #GoNatural. The response was particularly vitriolic from the burgeoning natural medicine movement.

This negative response, in turn, was covered extensively by traditional media sources. The Los Angeles Tribune, for example, ran a front-page editorial responding to local social media posts that questioned the government's response to SPARS in light of the new revelations about Kalocivir. The editorial accused the government of shoddy science and wasting tens of millions of dollars to advertise and supply an ineffective treatment. It ended by questioning the government's other SPARS-related endeavors, particularly the production and promotion of Corovax. The resulting media storm was especially problematic, as Corovax was due to be released in the coming weeks.

COMMUNICATION DILEMMA

Maintaining Public Support After Changing Positions on MCM Safety and Efficacy

FOOD FOR THOUGHT

1) In the time leading up to the newly revealed data about antiviral safety and efficacy, how might health communicators have better prepared the public for uncertainty and fluidity of crisis response and the need to act in the absence of complete information?

2) In light of waning public confidence in official statements about antiviral risks and benefits, how should health authorities best lay the groundwork for the release of the novel Corovax vaccine?

3) How can health authorities reestablish public confidence in MCM recommendations while also speaking truthfully about the state of knowledge about Corovax's safety and efficacy profile?



Head of the Line Privileges

Chapter Ten

In late June 2026, Corovax entered the final stage of its expedited review in the United States. After passing FDA safety reviews, production of the completed vaccine had begun and was on schedule. Ten million doses were expected to be available by mid-July, with another twenty million doses due by the end of August. With SPARS continuing to spread both within the United States and around the world, demand for a vaccine was still moderately high in spite of recent social media debacles, and every effort was made to increase domestic production capacity. Given the demonstrated morbidity and mortality of SPARS, and in anticipation of initial vaccine shortages, the CDC Advisory Committee on Immunization Practice (ACIP) identified the following priority groups for immunization: children aged 1-18, young adults 19-22 with chronic respiratory conditions, and pregnant women.



This plan was met with skepticism among certain groups. Doctors and nurses, for example, expressed concerns that they were not included as a priority group. In Milwaukee, healthcare providers even protested their lack of inclusion by refusing to report for work, which, in turn, prompted the Wisconsin Department of Health Services to promise that healthcare providers would be vaccinated as soon as more vaccine became available. In Republican ZapQ groups across the rest of the state, however, these protests and particularly the response from the Wisconsin Department of Health were widely reported across social media platforms as yet another example of liberal politics at work, regardless of the absence of politics or the actual content of the policy. Many Wisconsinite Republicans subsequently stopped following the news feeds and Twitter accounts of their state and local public health departments.

Other groups harboring concerns about ACIP's vaccine prioritization plan included parents of children under the age of one, adults over the age of 22 with chronic medical conditions, and people across the country who opposed vaccination generally. During the initial stages of the SPARS vaccine campaign, all of these groups (with the exception of the anti-vaccinators) were sparsely organized and had limited contact with one another, reducing the need for any type of formal response from the public health community.

COMMUNICATION DILEMMA

Communicating the Need for and Reasoning Behind the Prioritization of Scarce Resources

FOOD FOR THOUGHT

1) When responding to public concerns about priority access to scarce supplies of the Corovax vaccine, what solutions might result from authorities putting themselves in the place of outraged groups? How might authorities then adapt their messages?

2) How might health authorities balance scientific explanations for the allocation framework with a humanistic acknowledgement of the public's distress at them or their family being left out of the initial vaccine priority groups?

3) How can health authorities best set public expectations about the fluidity of priority groups, as determined by the nature of the outbreak, the vaccine supply, and the emergence of new knowledge about risks and benefits?

4) How might timely outreach to, and potential partnerships with, intermediary organizations such as healthcare professional societies figure into strategies to address the outrage of lower priority vaccination groups?



Standing in Line, Protesting Online

Chapter Eleven

To determine how to best distribute limited doses of Corovax to members of priority groups across the country, the US government resorted to new, controversial tactics; notably, having healthcare providers access patients' electronic health records (EHRs) to determine the number of individuals in high-risk populations receiving care in particular areas. Due to widespread increases in EHR use since 2020, this method proved to be highly effective, enabling providers to quickly tabulate the number of pregnant women and young adults 19-22 with chronic respiratory conditions. In some communities, like Los Angeles County, California, this method also identified neighborhoods with limited access to primary care. Based on this data, the Los Angeles County Department of Public Health began intensive public vaccination campaigns in those areas.

The use of EHRs was not without controversy, however. Some US citizens were upset because they believed the federal government was accessing private patient data. This stemmed from a misunderstanding on the citizens' part: the federal government was not accessing patients' EHRs directly, but rather was relying on healthcare organizations and providers to access patients' EHR and then report summary information (specifically, the number of people in the targeted groups) to the CDC, FDA, and other government agencies. The US government attempted to rectify this misunderstanding by posting, tweeting, and Zapping short statements and videos explaining the vaccine distribution process. These messages successfully reached citizens who subscribed to government news feeds or relied on traditional media coverage based on government sources. Critically, however, these messages failed to reach a small but growing segment of the US population obtaining information about SPARS and SPARS treatments from other, non-government sources.

During early stages of the US vaccination campaign, social media also played a key role in vaccine distribution. In communities like Austin, Texas, Facebook Live, Snapchat, Twitter, and ZapQ helped alert members of the public when vaccine dispensing was occurring. In many cases, this led to rapid

local responses that improved overall vaccine coverage. In some cases, however, it resulted in vaccine points of dispensing (PODs)—such as individual healthcare offices and schools—being overwhelmed, particularly with the 2026 flu season drawing closer. In Phoenix, for example, a social media campaign promoting vaccine dispensing at a closed POD (ie, not open to the public) serving a local elementary school resulted in more than two thousand parents and their children not affiliated with the school arriving at the POD and expecting to receive immunizations. The parents were informed that the POD was open only to children attending the school and were directed to obtain vaccinations for their children from their healthcare providers or a POD open to the general public. Events like this were widely covered by local and state media as well as by local social media. In some instances, like the case described above, the perceived lack of access to vaccines led some eligible individuals to give up seeking vaccinations altogether.

COMMUNICATION DILEMMA

Publicizing MCM Programs and Availability to Promote Uptake and Efficient Distribution

Providing Real-Time Data on Vaccine Availability to Align MCM Supply with Public Demand

FOOD FOR THOUGHT

1) Why is active monitoring of the "information sea" in which the public is swimming critical to the efforts of authorities to create conditions and provide information that support recommended public health behaviors?

2) How might a strong social media presence allow the federal government—and public health officials more broadly—to anticipate potential communication issues (eg, privacy concerns over using EHR data to direct vaccination efforts) before they become full-fledged crises?

4) Given the growing trend of people building their own "situational awareness" of an event via social media (eg, tracking vaccine availability), how might health authorities capitalize on this collective information-gathering and -sharing behaviors to enhance public understanding of MCM availability and improve access to life-saving MCMs?



Don't Put All Your Eggs in One Basket

Chapter Twelve

IMPORTANT HEALTH ADVISORY!

Grant County Health District and Okanogan County Public Health will provide **COROVAX** for the general public from **8 AM - 7 PM** this **Saturday, July 18** at their local offices (see below).

GET VACCINATED AGAINST SPARS!

On July 9, 2026, a week before Corovax was released for distribution in the United States, the power grid at the Grand Coulee Dam in eastern Washington State experienced a catastrophic failure. While the event did not destroy any infrastructure or result in any deaths, it did cause widespread power outages in Washington, Oregon, Idaho, Montana, and British Columbia. Though power was restored within a day of the initial outage, blackouts continued plaguing these areas over the next three weeks. Because summer temperatures in this region are typically moderate and adequate numbers of emergency generators existed for hospitals and other public facilities, there were no significant public health concerns associated with the event. Unfortunately, all communication about the vaccine rollout was published in electronic form, and consequently, many individuals in the affected areas were initially unable to access information provided by state, local, or federal health authorities regarding Corovax dispensing.

State and local public health officials scrambled to hand-deliver fliers, printed and copied at local Emergency Operations Centers using backup generators, to explain vaccine prioritization and POD information. This extremely time-consuming effort exhausted a public health workforce already stretched thin by the epidemic response and several years of budget cuts, but it was ultimately successful. Early vaccination rates in Washington, Oregon, and Idaho were very similar to other states and in some cases above average. In spite of this success, the incident underscored the shortcomings associated with relying solely on electronic communications strategies.

COMMUNICATION DILEMMA

Maintaining Consistent Messaging Across Electronic and Non-Electronic Media, and Implementing a Secondary Communication Plan if Electronic Media are Not Available

FOOD FOR THOUGHT

1) While greater use of electronic media opens new opportunities for broad outreach, what communication vulnerabilities exist that could impede communication efforts via electronic media?

2) How might local, state, and federal health officials be prepared for the unique vulnerabilities of electronic forms of MCM emergency communication?

3) How can public health communicators remain flexible when multiple disasters occur at once?



Lovers and Haters

Chapter Thirteen

Early on in the Corovax vaccination campaign, anti-vaccination groups began emerging on social media platforms. These groups initially came from four primary sources: Muslim groups across the country, who opposed the vaccine on the basis that the original formulation was used to treat pigs; African Americans, who refused vaccination based on continued fear of governmental experimentation on African American populations; alternative medicine proponents, who had also been active in campaigning against Kalocivir; and anti-vaccination activists, who were galvanized by the anti-anti-vaccination sentiment associated with the nationwide measles outbreak in 2015.

With the exception of this last group, none of the anti-vaccination movements were cohesively organized initially, existing primarily in small, isolated pockets across the country. The general anti-vaccination proponents, however, existed as a core, national group long before the SPARS pandemic. Following the 2015 measles outbreak in the United States, this group united online. By 2016, they had created several primary Facebook groups and numerous Twitter accounts and began using hashtags like #NoVaccines4Me and #VaccinesKill. The anti-vaccination movement migrated to ZapQ upon its emergence in 2022 due to its ability to combine feeds from across multiple platforms, including real-time text, picture, and video messages from members as well as select traditional media posts such as videos, texts, or streaming news feeds on a single interface that could be used on IAT and other mobile platforms. Additionally, through their ability to control group membership, these groups ensured that they would not be exposed to pro-vaccine "propaganda" from pharmaceutical companies, the federal government, or public health or medical authorities. By 2026, many core members of the anti-vaccine movement obtained their national news almost exclusively from anti-vaccine ZapQ sites.

When Corovax distribution began, the anti-vaccination movement mobilized their resources. Citing select quotes from the CDC, NIH, and other government agencies, anti-vaccine proponents began spreading the message that Corovax was inadequately tested and had unknown, long-term side effects

and that natural immunity resulting from contracting the disease was a more effective means of conferring protection. Many of these messages also contained suggestions (once again drawing on carefully selected and edited quotes from CDC, NIH, and other government officials) regarding how to manage SPARS symptoms. The anti- vaccination movement's ubiquity, motivation to prevent vaccine injury, and social media expertise meant that numerous Americans heard their message. National polls conducted in mid-August 2026, for example, showed that 68% of US citizens had seen a post or read a comment from someone expressing anti-Corovax sentiments.



Concern about Corovax among American Muslims was also common, in particular Muslim immigrants to the United States. These concerns stemmed from early traditional media reports on Corovax that explained how the vaccine was a derivative of the GMI vaccine used to treat cows and pigs in Southeast Asia. After reading and viewing these reports, several local Muslim leaders mistakenly conflated the origin of the virus with the origin of the vaccine and concluded that the vaccine itself was unclean. As such, they viewed receiving the vaccine as a violation of their faith. By posting their conclusions on social media, their views quickly spread beyond their local communities, and rumors began among Muslims across the country that the vaccine was forbidden.

When federal public health officials became aware of the opposition from Muslim communities, they organized a press conference, hosted by HHS Secretary Nagel to address these misperceptions. In this press conference, Secretary Nagel explained that Corovax was designed specifically for humans and not for pigs. She invited Imam Omar Khalifa, a prominent imam in the Washington, DC area, to speak at the press conference and he reiterated the Secretary's points. He also called on his fellow Muslims to embrace SPARS vaccination. Assuming that this press conference, which was widely publicized and shared would effectively assuage the concerns of American Muslims, the US government continued with its existing vaccination promotional campaign. In contrast to most Christian religions, however, the Muslim faith is not at all centralized, and the statements of an imam from Washington, DC held

little validity for many local Muslim communities. The influence of local imams continued to perpetuate anti-Corovax sentiments among many local Muslim communities well into the national vaccination campaign. Consequently, vaccination rates among Muslims generally lagged behind those of other demographic groups in the United States.

Despite the failure of these federal initiatives, some local public health departments were able to effectively address concerns of local Muslim populations. In King County, Washington, for example, local public health officials became aware of the concerns of the local Somali Muslim population in early August. Acknowledging the authority held by local imams, these officials held community meetings with local Somali leaders to engage the local community and posted culturally relevant information on a website specifically designed for their Somali Muslim constituents. By enlisting the support of local Muslim leadership, these efforts ultimately led to high levels of Corovax acceptance among Somali Muslims in King County.

Not all local or state public health departments, however, took this approach. Some were unaware of the concerns of this particular subpopulation, and others felt that resources should be more appropriately allocated elsewhere. The fact that websites like the one posted by Seattle King County Public Health were publicly available, however, meant that Muslim populations in other areas of the country had access to them. In Denton, Ohio, for example, local Senegalese Muslim immigrants began sharing the link to the King County webpage. This, in turn, helped increase Muslims' acceptance of Corovax in this area, although it also diminished their confidence and trust in local public health officials, who had not conducted targeted outreach to their community.

The concerns of African Americans were very different. Distrust of new treatments, including vaccines, was not a new phenomenon among African American communities. The legacy of the Tuskegee syphilis experiments and the fact that during the 2014 Ebola outbreak, experimental therapeutics were not made available to Thomas Eric Duncan (a Liberian traveler who had died of Ebola in Dallas, Texas), nor to many West African communities struck by Ebola, meant that many African Americans — particularly those living in communities consuming media through local, traditional media platforms — feared the possibility of being subjected to scientific experimentation. These fears worsened during healthcare providers' analysis of EHRs in Los Angeles County, which

identified many African American communities (as well as other minority populations) as lacking access to primary care. In some areas, aggressive public health vaccination campaigns were locally interpreted as direct examples of experimentation. Repurposing hashtags like *#BlackLivesMatter*, some African Americans in these communities began to actively campaign against Corovax.

Through August 2026, anti-vaccinators, Muslims, and African Americans remained largely isolated from one another. By early September, however, continued anger over EHR use and growing concern over Corovax's side effects spurred these once-disparate groups to join forces with the alternative medicine proponents still campaigning against Kalocivir. Uniting their efforts, these groups began sharing common anti-vaccine messages through a variety of social media channels including Facebook, Tumblr, Snapchat, YouTube, and ZapQ forums, as well as local radio announcements. Some anti-vaccine groups also began crowdsourcing information about vaccine distribution sites to stage local anti-vaccination protests. These protests, along with the anti-vaccine messages shared by the super-group, subsequently received wide, national coverage through traditional media outlets, including local and national television news channels.

While the US government attempted to respond to claims raised by the anti-vaccination super-group, their messages did not reach many members of the anti-vaccination groups because they had already tailored their social media and news feeds to reflect only the opinions of those with whom they agreed. On the other hand, the government messages were effective among some segments of the general US population who had not limited their news feeds, and more importantly, they served to galvanize a burgeoning pro-vaccination campaign.

During the measles outbreak of 2015, pro-vaccination groups like Mothers Against Vaccine Waivers emerged across the United States. With a few exceptions, these groups lost all momentum by 2018. Furthermore, activity among the groups that remained active was limited to a few, underused social media sites and semi-popular hashtags such as #GetVax, #VaccinesWork, and #Vaccinate. With the advent of Corovax, the pro-vaccination movement found renewed purpose. By the time Corovax distribution began in July 2026, it was clear that not only did SPARS infect children more frequently and severely, but even mild cases of the disease often gave rise to secondary bacterial pneumonia in children. These infections often occurred between four and six months after initial infection with SPARS, resulting in greater rates of pediatric morbidity and mortality from the disease.



Concern about SPARS was quite high among many parents of young children, and when anti-vaccination campaigns began threatening vaccine uptake, some of these parents began to mobilize. Parents who were once active in the pro-vaccination campaigns of 2015 began repurposing communication channels developed at that time, including Facebook pages and Twitter accounts. New local groups also began to organize on ZapQ, Snapchat, and other social media outlets. Ultimately, by November 2026, many of these groups coalesced to form a semi-cohesive national group that attempted to counter the efforts of the super-anti-vaccination group.

HHS, including the CDC and FDA, and other government agencies at the federal, state, and local levels also renewed messaging efforts in support of Corovax. The common message developed about Corovax originally used in early June was re-released, and two additional messages were developed and distributed by mid-October, just before the vaccine was made available to the entire US population. Paul Farmer, the renowned global health expert, provided the dialogue for the first of these, wherein he lauded the safety and efficacy of Corovax and underscored the dangers of SPARS. His only regret, he said, was that the vaccine could not yet be made available to everyone on the planet. In the second message, former President Bennett redeemed herself by televising her vaccination as well as the vaccination of two of her granddaughters.

These pro-vaccination efforts were largely successful, and vaccination rates in many areas of the country began to climb through December 2026. The population with the highest vaccination rates in the United States, however, did not participate in this pro-vaccination rhetoric. Filipino-Americans and Filipino immigrants living in the United States—the groups most closely associated with SPARS in the news media, and at least in some circles the group often blamed for the spread of SPARS—had near-perfect vaccination rates. Though Filipinos across the United States demonstrated great solidarity throughout the SPARS pandemic, their potential as a source of pro-vaccination rhetoric remained largely untapped.

COMMUNICATION DILEMMA

Addressing Multiple, Independent MCM Concerns Simultaneously

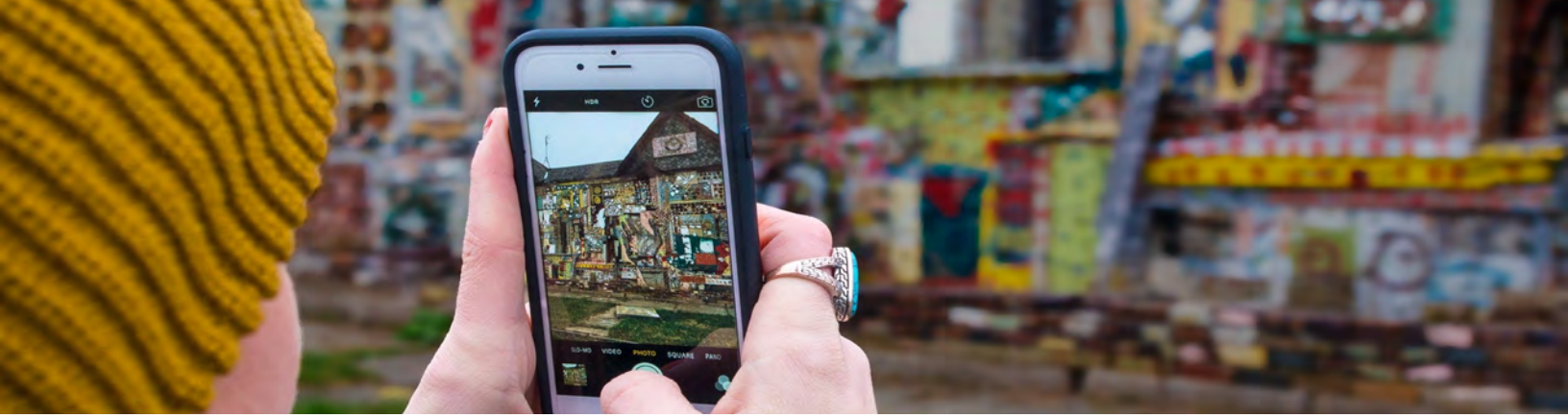
Meeting the Information Needs of Citizens Who Come from Diverse Cultural, Social, and Demographic Backgrounds, and May Have Varying Degrees of Trust in Health Authorities

FOOD FOR THOUGHT

1) What are the respective roles and responsibilities of local, state, and federal health authorities before and during a MCM campaign to understand different audience segments and to develop messages that address their concerns?

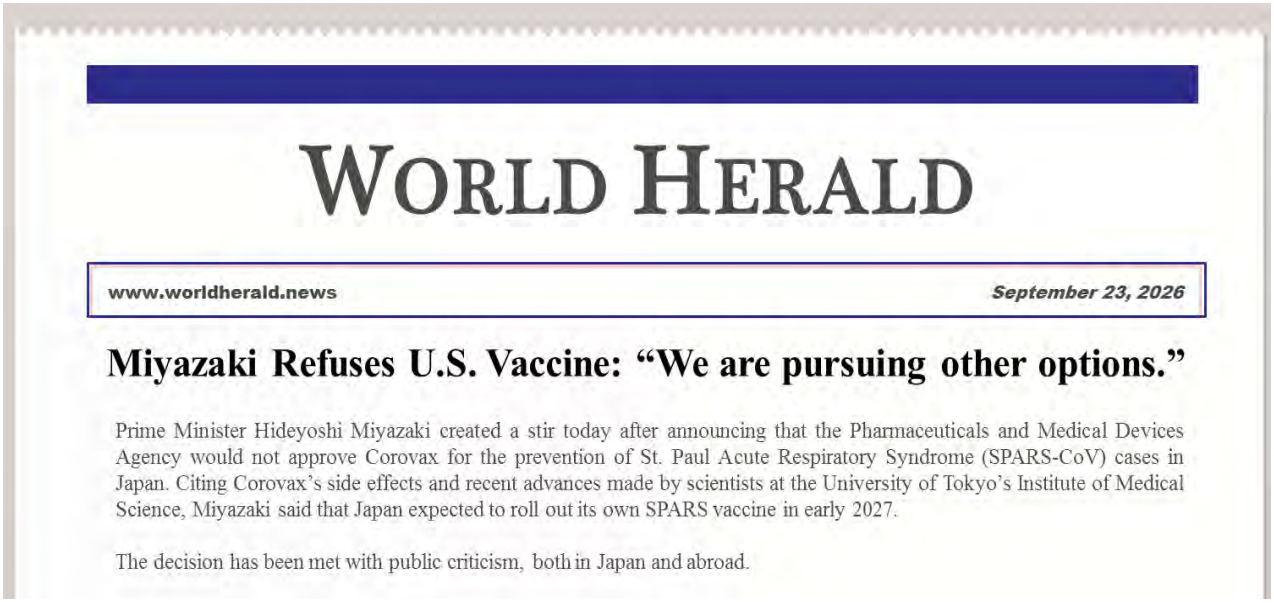
2) What communication strategies might be effective for breaking into, and engaging with otherwise self-isolating groups who oppose a recommended MCM like Corovax and might be placing themselves and others at risk during the outbreak?

3) What kinds of pre-crisis partnerships and alliances with intermediary groups and/or opinion leaders might have helped to reduce the likelihood and mitigate the impact of anti-Corovax sentiments among specific minority groups?



The Grass is Always Greener, Part II

Chapter Fourteen



WORLD HERALD

www.worldherald.news — *September 23, 2026*

Miyazaki Refuses U.S. Vaccine: "We are pursuing other options."

Prime Minister Hideyoshi Miyazaki created a stir today after announcing that the Pharmaceuticals and Medical Devices Agency would not approve Corovax for the prevention of St. Paul Acute Respiratory Syndrome (SPARS-CoV) cases in Japan. Citing Corovax's side effects and recent advances made by scientists at the University of Tokyo's Institute of Medical Science, Miyazaki said that Japan expected to roll out its own SPARS vaccine in early 2027.

The decision has been met with public criticism, both in Japan and abroad.

In September 2026, two months after the first batches of Corovax were released in the United States, Japan announced that it would not approve the vaccine for use in Japan due to concerns that it had not been vetted properly through full clinical trials. Preliminary Corovax trials conducted in Japan had shown that the vaccine was effective at preventing SPARS and that the incidence of immediate side effects was minimal; however, significant concerns remained about the possibility of chronic, long-term side effects based on data from the original GMI vaccine. As an alternative, the Japanese government stated that it would continue the development of an alternative SPARS vaccine, which they expected to become available in early 2027.

Japan's refusal to accept Corovax was widely covered in the international media. The decision was particularly controversial because of widespread SPARS transmission across Japan. The fact that the Japanese government was willing to wait six or more months for another vaccine to be developed was

also especially concerning to the US public. Compounding this concern was the general lack of a response to the Japanese decision from the US government. Although HHS Secretary Nagel released a short statement reiterating the safety of Corovax, the CDC, FDA, and other government agencies did not respond at all, a reflection of a longstanding tradition of not commenting on other countries' internal public health decisions. From the public's viewpoint, however, the lack of a response from trusted government agencies only exacerbated vaccine fears.

The growing anti-vaccination super-group in the US also used the Japanese government's decision as further evidence that Corovax was harmful and should be avoided. In September and early October 2026, the group continually posted video clips of Japanese news conferences and translations of Japanese reports on Corovax through their social media channels. Additionally, the group hosted real-time, public conversations with the scientists in charge of running clinical trials of Corovax in Japan. Clips from these conversations were subsequently shared through an aggressive IAT campaign in which anti-vaccine proponents streamed the clips on jackets, bags and other IAT devices for all around them to see. While many in the US government and traditional media outlets ultimately attributed Japan's refusal to approve Corovax to its desire for a domestically produced vaccine, this story gained little traction across social media platforms.

These actions by the anti-vaccination super-group eventually led to responses from various US government agencies as well as the emerging pro-vaccination movement. Such responses, however, were not effective at reaching all groups. Many anti-vaccination proponents had previously limited their newsfeeds to exclude many state and federal agencies, and other individuals and groups, particularly those with close ties to Japan, had already begun to consider foregoing Corovax vaccination in the US and instead traveling to Japan to receive the new vaccine once it became available in 2027.

COMMUNICATION DILEMMA

Supporting the Current MCM Product in the Face of Opposition from a Foreign Regulatory Agency

FOOD FOR THOUGHT

1) In an increasingly interconnected global communication environment, how could US health officials be better poised to explain the rationale for their continued recommendation of the US-based Corovax vaccine when Japan regulators opt not to approve the vaccine?

2) Given the potential for this scenario to reoccur in another health emergency, would pre-testing messages about foreign and domestic regulatory decision-making be helpful in determining if they resonate with the public?



Are You Talking to Me, Part II

Chapter Fifteen

Jonathan Atwell

From: Atwell, Jonathan F <atwelljonathan@cookcounty.gov>
Sent: Thursday, October 15, 2026 4:45 PM
To: Sloane, Heidi J; Rojas, Xavier M; Lukas, Andrew J
Subject: UNEQL

Interns, Assemble!

At the county SPARS response briefing today, the County Commissioner and Board of Administrators identified UNEQL as an untapped social messaging resource to promote county public health recommendations for SPARS. Despite everyone feigning knowledge and experience with UNEQL, the closest we came in the room to any kind of exposure to it was several Department Heads and Administrators whose college-aged kids are on it.

Director of Health, Janice O'Connor, has scheduled a meeting for 10 AM Monday morning to discuss UNEQL and its potential as a means of communicating with the public. I would like to bring the three of you along to serve as resident experts on UNEQL in order to help us identify ways to establish a presence and leverage it to promote public health recommendations.

Take some time tomorrow and this weekend to think through this problem. See you bright and early Monday! I'll bring donuts.

Cheers,
Jon

Jonathan Atwell

Cook County Department of Public Health
Infectious Disease Programs Officer
(444) 444-4444

Another group that was not generally affected by the government's Corovax promotion efforts were college students, especially those attending school on the east and west coasts. Public health officials had no explanation for the lack of vaccine uptake among this population until protests began at several college campuses including UC Berkeley, the University of Washington, Reed College, Harvard, and the University of Chicago. The focus of these protests was the lack of access to Corovax, particularly for populations in less-developed countries like Haiti, Guatemala and Cameroon. The college students involved declared that they would not accept Corovax until it was made available, in terms of both access and expense, to everyone in the world who wanted it.

The impact of these protests was substantial. Protesters cited reports and statistics, used photographs and videos obtained from students studying abroad in affected countries, and re-circulated the government's clip of Paul Farmer expressing regret over low Corovax distribution in less-developed countries to drive home their argument. The students' views and the protests themselves were increasingly covered in local, national, and international media as well as social media across the globe. In the following months, Congressional hearings on access to the vaccine were held in response to the protests, President Archer conducted meetings with multiple heads-of-state, and the WHO began developing an enhanced international vaccine program based on the expanded financial support of the United States and other countries.

Once public health agencies and university administrators became aware of the magnitude of UNEQL's influence among college-aged populations, they began to incorporate the platform into their communication protocols. Three of UNEQL's reporters were asked to conduct interviews with several prominent state and federal public health officials and government offices to ensure that pro-Corovax messages were posted in public UNEQL forums. Despite these efforts, however, vaccination rates among college students continued to lag behind those of their peers not enrolled in college and the US population in general. One possible reason for this was that the messages put out by the CDC, FDA, and other government agencies on UNEQL did not adequately address the specific concerns of college students and, in the absence of a solution to the issue of global vaccine access, focused instead on the benefits of Corovax and the nationwide vaccination program.

COMMUNICATION DILEMMA

Responding to Complex Ethical Issues That are Beyond the United States Government's Control

FOOD FOR THOUGHT

Which of the following communication measures might help health authorities successfully encourage college students to seek out vaccination while world leaders mobilize to improve equity in access to Corovax globally? How so?

⇒ Engaging in direct dialogue with student leaders to understand their concerns

⇒ Communicating to students with empathy and understanding with respect to their desire to advocate on the behalf of others

⇒ Encouraging students to take action in their own communities, such as volunteering with local health departments, to ensure that marginalized groups have information about and access to Corovax



Antibiotics, HO!

Chapter Sixteen

Corovax production continued throughout the fall and winter. By mid-December, vaccines were no longer limited to priority populations, and by January 2027, efforts to vaccinate the entire US population were actively underway. Global vaccination efforts up to this point were limited by vaccine supply, and while they had a moderate effect on SPARS incidence rates, the disease continued to spread steadily worldwide.

Demographically, vaccination rates across the United States were mixed. Rates were high among Filipino-Americans, healthcare workers, families with young children, and individuals who identified themselves as Republicans. Rates were considerably lower among African Americans, Muslims, college students, and pocketed communities in places like San Francisco and Boston, where anti-vaccine sentiment was particularly high.

To reach members of these groups—which, with the exception of the pocketed communities, were largely spread throughout the country—the US government added a new, aggressive advertising campaign to its pro-vaccination efforts. This campaign provided targeted internet advertisements to individuals as they conducted web searches or visited anti-vaccination websites. If someone searched Google for "Corovax side effects," for example, a sidebar advertisement appeared on the results page explaining the benefits of the vaccine. Likewise, if someone wished to view the Kalocivir vomiting video on YouTube, they would first have to watch either a montage of pictures illustrating the effects of SPARS or a clip of Paul Farmer's explanation of Corovax's benefits. This advertisement campaign required government officials to leverage relationships in the information technology industry, including the many companies involved with social media, but the impact was worth the effort. Vaccination rates eventually began increasing across all targeted demographics except the most recalcitrant anti-vaccine activists.

A new challenge soon emerged, however: antibiotic shortages. In late 2026, at the height of the cold and flu season, bacterial pneumonia cases were on the rise across the country. Epidemiologic evidence later indicated that thirty to forty percent of children and ten to twenty percent of adults developed secondary bacterial pneumonia approximately four to eight months after initial SPARS infections. Luckily, most of these infections were easily treated with antibiotics. By February 2027, however, antibiotic supplies in the United States were running low. In an effort to combat the shortage, HHS Secretary Nagel authorized deployments of antibiotics from the SNS to supplement health care systems across the country.

The oldest lots of antibiotics in the SNS were originally scheduled to expire in 2021, but those expiration dates had been extended multiple times through the Shelf Life Extension Program (SLEP). Tests conducted in August 2026 showed continued potency of the drugs in 95% of those lots, and all viable lots were granted another two-year extension, postponing their expiration from 2027 to 2029. This was the first set of tests indicating any degradation in those lots of antibiotics, and both the Office of the Assistant Secretary for Preparedness and Response (ASPR) and the CDC recommended purchasing additional inventory to replace the expiring lots by 2030. The most recent tests (conducted in February 2028) assessed that 94% of the remaining lots due to expire in 2029 remained sufficiently effective. Federal authorities decided to deploy these lots first to ensure adequate public uptake before the drugs expired.

Despite proactive efforts to address public concern over the use of antibiotics from the SNS, rumors about the effectiveness of the drugs spread quickly. Inaccurate local news broadcasts and social media messages asserted that the government was distributing expired antibiotics, and concerned citizens, particularly parents of young children, began calling their healthcare providers, pharmacists, and local health departments to seek clarification. While many of these parents' fears were alleviated when they learned about the distinction between shelf life extension and expiration, the effort required to convey this message to parents on an individual basis proved overwhelming for local health authorities. The FDA and CDC had not anticipated such a strong and rapid response from the public on this issue, and they were initially unprepared to combat the negative publicity. Within 48 hours, however, a coordinated response was developed that highlighted the need for the rapid deployment of antibiotics and illustrated the capability of the SNS to do just that. The decision to deploy antibiotics closest to expiring was also justified by providing concrete and consistent laboratory evidence of every test performed on the deployed lots of antibiotics, noting consistent potency of the drugs over their entire

shelf lives and comparable potency of the deployed lots to newer lots. Having dealt with multiple communications issues over the course of the SPARS pandemic, federal leaders successfully applied communications lessons learned from past failures and coordinated a rapid and effective response. Despite the stubborn persistence of the echo-chamber, where increasingly connected individuals persistently chose to only listen to opinions that mirrored their own, not all opinions remained static throughout the SPARS pandemic. In January 2027, Alyssa Karpowitz, one of the most outspoken anti-Kalocivir and anti-Corovax activists and a leader in the natural medicine movement, had an experience that changed her stance on the use of "expired" antibiotics. Her youngest son, Lennon, contracted a mild case of SPARS and experienced few complications, but several months later he developed a severe case of post-SPARS bacterial pneumonia. Alyssa attempted to treat Lennon with a variety of natural medicines, but his condition deteriorated. Desperate, she took him to her local emergency department where he was administered a dose of intravenous antibiotics deployed to the hospital from the SNS. As Alyssa later described, "The effect was almost instantaneous. Within a day I had my beautiful baby boy back!"

As a result of this experience, Alyssa used all of her connections in the natural medicine and anti-vaccine circles to share her story and her newfound belief in the safety and effectiveness of "expired" antibiotics. While her message about the antibiotics being expired was erroneous, her outreach proved extremely effective. While many people who participated in these groups were no longer listening to official or even unofficial communications about the safety and effectiveness of the recommended pharmaceuticals, they were willing to listen to Alyssa. As a result, the opposition to "expired" antibiotics in the groups to which Alyssa belonged began to dissipate.

When government health authorities became aware of the impact of Alyssa's story on her followers and others who heard about her son's recovery, they began to expand their use of social media to gather accounts of positive experiences with Corovax and antibiotics used to treat post-SPARS pneumonia. The CDC in particular began mining data from public social media sources for positive stories they could include in their new outreach efforts. While limited to individuals who were still receiving messages from the CDC, or news outlets that reported information from the CDC, the impact of these outreach efforts was positive. National surveys conducted in the months following Alyssa's decision to give her son antibiotics and the government's efforts to promote Corovax showed that opposition to Corovax decreased by 23% and opposition to antibiotic use from the SNS decreased by 61% among the general US population.

COMMUNICATION DILEMMA

Responding to Questions Regarding Safety and Efficacy of Drugs That Have Extended Shelf Lives

FOOD FOR THOUGHT

1) Given that the term "expiration date" can trigger public misunderstanding about the safety and efficacy of SNS-stockpiled drugs, how might pre-message testing around this topic and shelf life extension have proved useful to health authorities in the SPARS context?

2) Why were partnerships between the federal government and the information technology industry, including a number of social media companies, so vital to increasing overall uptake of the Corovax vaccine?

3) What communication strategies might be effective at overcoming the "echo-chamber" effect over the course of the SPARS outbreak? What pre-crisis measures, if any, might have been useful to dampen the "echo-chamber" effect?



Recovery





Vaccine Injury

Chapter Seventeen

In contrast to Alyssa Karpowitz's story, not all changes in opinion were in favor of public health messaging. As time passed and more people across the United States were vaccinated, claims of adverse side effects began to emerge. Several parents claimed that their children were experiencing neurological symptoms similar to those seen among livestock exposed to the GMI vaccine. By May 2027, parental anxiety around this claim had intensified to the point of lawsuits. That month, a group of parents whose children developed mental retardation as a result of encephalitis in the wake of Corovax vaccination sued the federal government, demanding removal of the liability shield protecting the pharmaceutical companies responsible for developing and manufacturing Corovax.

The growing plaintiff cohort quickly withdrew their suit upon learning that the National Vaccine Injury Compensation Trust Fund (NVICTF) and an emergency appropriation of funds authorized by Congress under the PREP Act existed to provide financial reimbursement to those who were adversely affected by the Corovax vaccine in order to cover healthcare costs and other related expenses.[2,3] Given the positive reaction to the federal government's response and the fact that the majority of US citizens willing to be vaccinated had already been immunized, the negative publicity surrounding adverse reactions had little effect on nationwide vaccination rates. The focus on adverse side effects, however, resulted in a considerable increase in the number of compensation claims filed, and many grew concerned about the long-term effects that Corovax could have on their health. This concern was particularly high among some African American parents who continued to question the government's motives regarding the Corovax vaccination campaign.

While the FDA, CDC, and other agencies were busy researching possible connections between Corovax and the reported neurological side effects, their efforts were continually undermined by epidemiological analyses produced by various non-governmental individuals and groups. A popular

science blogger EpiGirl, for example, began posting interactive maps of the incidence of Corovax side effects in April 2027. To create the maps, EpiGirl collected anecdotes of adverse Corovax side effects using Facebook, Twitter and YouTube and combined them with data downloaded from the HHS Vaccine Adverse Event Reporting System (VAERS), a national vaccine safety surveillance program maintained by the CDC and FDA. EpiGirl also encouraged those among her subscribers who were Apple product users to share health data with her via Apple's ResearchKit and HealthKit applications. EpiGirl's maps were consequently shared widely in social media circles and even included in local and national news reports.

The federal government became concerned about the validity of EpiGirl's anecdotal data and the widespread sharing of patient information via the internet. EpiGirl's data showed a significantly higher incidence rate of nearly every reported side effect; however, federal officials believed that this was largely due to duplicate entries resulting from compiling data from multiple sources. Additionally, EpiGirl's data did not seek to address the cause of the reported side effects, only the incidence rate. Publication of similar results from organizations such as Patients-Like-Me, a group closely associated with the natural medicine movement, further legitimized these independent reports. The government attempted to respond to these claims through formal press releases, but these were neither as visually appealing nor as interactive as EpiGirl's maps and were, therefore, largely ignored.

While the federal government appeared to have appropriately addressed concerns around the acute side effects of Corovax, the long-term, chronic effects of the vaccine were still largely unknown. Nearing the end of 2027, reports of new neurological symptoms began to emerge. After showing no adverse side effects for nearly a year, several vaccine recipients slowly began to experience symptoms such as blurry vision, headaches, and numbness in their extremities. Due to the small number of these cases, the significance of their association with Corovax was never determined. As of this writing in 2030, longitudinal studies initiated by the NIH at the beginning of the vaccination program have not reached the next round of data collection, so formal analysis on these symptoms has not yet been conducted. Furthermore, these cases arose from the initial cohort of vaccine recipients—those in high-risk populations, including those with other underlying health conditions—making it increasingly difficult to determine the extent to which these symptoms are associated with vaccination.

As these cases emerged, patients began filing for compensation under the PREP Act. Due to lingering uncertainties over possible links between vaccination and reported neurological symptoms, their compensation requests were placed on indefinite hold, pending further data analysis. This cohort, many of whom adamantly supported the Corovax vaccine initially, quickly took to social media to publicize their issues.

Despite relatively few reports of neurological symptoms, the social media response was immense. After experiencing initial success with PREP Act compensation policies and working diligently to ensure transparency throughout the claim request and evaluation process, HHS was caught off guard by the new round of negative publicity. They were pressured by the public and media to award compensation to those claiming long-term effects from Corovax despite having no data to support these claims. Displaying a fundamental misunderstanding of scientific research, many demanded proof that the vaccines did not cause long-term effects. HHS Secretary Nagel firmly and vocally supported the decision to postpone evaluation of all claims of long-term side effects and invited an independent Congressional investigation to ensure that the PREP Act was being properly implemented.

In addition to demands for immediate compensation, Congress faced public pressure to increase the PREP Act emergency appropriation. While the initial allocation of funds was sufficient to provide compensation for acute side effects, the prospect of long-term effects and potentially permanent disability gave rise to concerns that additional resources would be necessary in the near future.

COMMUNICATION DILEMMA

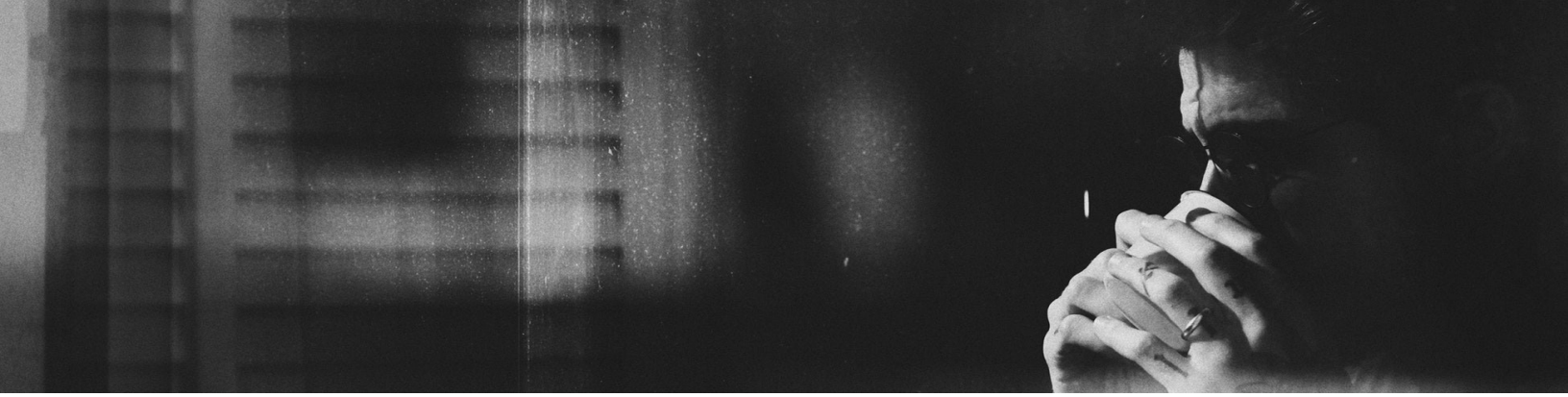
Communicating With the Public About
Trustworthy Sources of Data and
Options for Legal Recourse in a Climate of Mistrust

FOOD FOR THOUGHT

1) How might advance development and testing of recovery messages that specifically address the topics of adverse side effects and the NVICTF help improve health authorities' ability to respond to public distress about medical issues emerging after a MCM campaign? What are some messages that would warrant such testing?

2) Despite the uncertain science about the link between Coravax and the reported neurological symptoms, why should health officials still communicate with compassion and genuine sympathy toward those in the vaccinated population who experience medical issues subsequent to being vaccinated?

3) Given growing interest in open data systems and the application of "crowd sourcing" to solve complex problems, how might public health officials take greater advantage of two-way communication with an interested public in the aftermath of the SPARS outbreak? For instance, how might input and analysis from members of the public help improve adverse event monitoring or assess the strengths and weaknesses of a specific MCM campaign?



Acknowledging Loss

Chapter Eighteen

At the request of HHS Secretary Nagel, ASPR convened a series of meetings among senior leadership of the federal health agencies to address policy and program changes being implemented as a result of a departmental review of the response to the SPARS pandemic. Among the issues considered were the implications of growing negative public opinion regarding Corovax and the government's perceived indifference to victims of the public health response to SPARS. One senior health official argued that time and a robust medical monitoring program for vaccine recipients—the components of which were already in place—should be sufficient to determine whether public concern about long-term effects was, in fact, warranted: "We have to wait for the data. People need to understand that fact."

One prominent attendee at these meetings was Dr. Ann Flynn, the director of the Substance Abuse and Mental Health Services Administration (SAMHSA). Staff from the administration's Disaster Technical Assistance Center had recently briefed Dr. Flynn on usage data for the SAMHSA Disaster Distress Helpline over the past year, and summary reports indicated that a significant number of helpline users said that their principal worry was associated with the SPARS pandemic and, more recently, uncertainty about potential long-term effects of Corovax. Considering this new knowledge, Dr. Flynn countered the earlier claim that the public simply needed to wait until the science was clear: "Communities around the country went through what some felt was a harrowing public health emergency, only later to confront the possibility, however slim, that the medicine we promised would help them may in fact be hurting them."

The senior leaders in attendance concluded, after much prompting by Dr. Flynn, that no top political or public health figurehead had publicly recognized the collective sense of vulnerability that the pandemic had elicited or the strength that the public exhibited under threat of grave danger. Moreover, no national leader had publicly acknowledged the public's broad willingness to accept a

prescribed countermeasure that promised to end the pandemic, but whose long-term consequences were not fully understood at the time.

Following the meeting, ASPR recommended to HHS Secretary Nagel that SAMHSA collaborate with stakeholders and devise behavioral health guidance for the states, tribes, and territories on how to strengthen the public's coping skills, provide support for grieving individuals, encourage a forward direction, and meet other SPARS recovery needs. It was further recommended that Secretary Nagel consult with President Archer about the possibility of acknowledging the emotional toll of SPARS during a future public appearance. The primary message would be one of gratitude to the American people for remaining strong during the pandemic. Another key message would convey appreciation for adhering to public health recommendations, including vaccination, to hasten the end of the pandemic in the face of considerable uncertainty.

President Archer agreed to address the country's resolve and recovery in the face of SPARS. Top risk communication advisors from the CDC, FDA, NIH, and SAMHSA conferred as a group about how best to frame the President's remarks. The group vigorously debated whether it was appropriate for the President to acknowledge the sacrifice that vaccine recipients had made on behalf of their communities or to console them in their grief over that sacrifice.

COMMUNICATION DILEMMA

Bringing a Sense of Resolution to a Period of Crisis While Striking a Balance Between the Need to Affirm Collective Grief and Loss and the Need to Move Forward

FOOD FOR THOUGHT

1) Given the uncertain long-term safety profile of the Corovax vaccine, why are both science and sympathy necessary when communicating about a possible correlation between vaccination and adverse events?

2) What general communication principles does the advice of Dr. Ann Flynn suggest with respect to the recovery phase of a public health emergency involving MCMs? What might pre-event planning for recovery-phase communication look like based on her guidance?



SPARS Aftermath

Chapter Nineteen

Today, nearly five years since the St. Paul Acute Respiratory Syndrome coronavirus made its global debut, there remain human cases in 14 countries across Europe, Africa, and Asia. The pandemic officially ended in August 2028, but the virus persists in domesticated animal reservoirs. WHO experts hypothesize that small, isolated outbreaks of SPARS were occurring long before the disease emerged on a global scale in 2025, and they anticipate that future outbreaks will continue to emerge unless countries maintain widespread vaccination coverage.

As the pandemic tapered off, several influential politicians and agency representatives came under fire for sensationalizing the severity of the event for perceived political gain. As with many public health interventions, successful efforts to reduce the impact of the pandemic created the illusion that the event was not nearly as serious as experts suggested it would be. President Archer's detractors in the Republican Party seized the opportunity to publicly disparage the President and his administration's response to the pandemic, urging voters to elect "a strong leader with the best interests of the American people at heart." A widespread social media movement led primarily by outspoken parents of affected children, coupled with widespread distrust of "big pharma," supported the narrative that the development of SPARS MCMs was unnecessary and driven by a few profit-seeking individuals. Conspiracy theories also proliferated across social media, suggesting that the virus had been purposely created and introduced to the population by drug companies or that it had escaped from a government lab secretly testing bioweapons.

After-action reports, government hearings, and agency reviews following the pandemic were too numerous to count. Emergency funding appropriated by Congress to fight the disease became available partway through the course of the pandemic, but federal, state, and local public health agencies struggled to manage the procedural requirements to spend it. As a result, significant amounts of

emergency funds remained unused as the pandemic wound down. As the investigations grew in intensity, several high-ranking officials at the CDC and FDA were forced to step down and withdraw from government in order to "spend more time with their families." Exhausted employees of these agencies, many of whom worked long hours six or seven days a week throughout the pandemic, simply wanted to put the whole response behind them. Little desire remained on the part of decision-makers or those who served in the trenches during the response to rehash the events of the past several years.

The very real possibility of a future SPARS pandemic necessitates continued commitment to vaccination programs as well as accurate, culturally appropriate, and timely communication from public health agencies across the planet. While the communication experiences of the SPARS pandemic of 2025-2028 offer some examples for how this communication can and should occur, they also identify practices that should be avoided, or at least modified, for responses to future public health emergencies.

COMMUNICATION DILEMMA

Institutionalizing Communications Lessons from the 2025-2028 SPARS Pandemic

FOOD FOR THOUGHT

What benefits might arise if health authorities publicly share what they have learned from MCM use during the health emergency (including response missteps and successes) and communicate how government agencies plan to evolve on the basis of that information?



REFERENCES & APPENDICES



REFERENCES

1) Ogilvy J, Schwartz P. Plotting Your Scenarios. Emeryville, CA. 2004: http://www.meadowlark.co/plotting_your_scenarios.pdf. Accessed April 13, 2015.

2) Public Readiness and Emergency Preparedness Act. In: Department of Health and Human Services, ed. Washington, DC. 2005.

3) Health Resources and Services Administration. National Vaccine Injury Compensation Program. http://www.hrsa.gov/vaccinecompensation/index.html. Accessed April 6, 2015.

ACRONYMS

Following is an alphabetized list of acronyms used throughout the scenario.

ACIP: Advisory Committee on Immunization Practice

ASPR: Office of the Assistant Secretary for Preparedness and Response

CDC: Centers for Disease Control and Prevention

EHR: Electronic health records

EUA: Emergency Use Authorization

FDA: Food and Drug Administration

HHS: Department of Health & Human Services

IAT: Internet-accessing technology

MERS: Middle East Respiratory Syndrome

MCM: Medical countermeasure

NAIHS: Navajo Area Indian Health Service

NIH: National Institutes of Health

NVICTF: National Vaccine Injury Compensation Trust Fund

POD: Point of dispensing

PHEIC: Public health emergency of international concern

RCT: Randomized controlled trial

SARS: Severe acute respiratory syndrome

SAMHSA: Substance Abuse and Mental Health Services Administration

SLEP: Shelf Life Extension Program

SPARS: St. Paul Acute Respiratory Syndrome

SNS: Strategic National Stockpile

VAERS: Vaccine Adverse Event Reporting System

WHO: World Health Organization

RESPONSE SCENARIO TIMELINE

2025

October

The first US deaths occurred due to SPARS. Initially, these deaths were thought to

November

Cases of SPARS were reported across Minnesota and in six other states.

Thanksgiving holiday travel and Black Friday shopping facilitated spread of SPARS beyond the Midwest (26 states and multiple other countries by mid-December).

The WHO declared the SPARS pandemic to be a Public Health Emergency of International Concern.

December

No treatment or vaccine for SPARS existed, but there was some evidence that the antiviral Kalocivir could be effective as a therapeutic.

A proprietary vaccine developed and manufactured by a multinational livestock conglomerate (GMI) was proposed as a potential foundation for a human vaccine. The vaccine was developed to combat an outbreak of a similar respiratory coronavirus in hooved mammal populations in Southeast Asia, but the vaccine had not been licensed by any regulatory authority or tested in humans. There were concerns over potential

2026

January

The US government contracted CynBio to develop and produce a human SPARS vaccine based on the GMI animal vaccine.

The HHS Secretary invoked the Public Readiness and Emergency Preparedness Act (PREP Act) to provide liability protection for the vaccine manufacturer and providers. Congress authorized and appropriated emergency funds under the PREP Act to provide compensation for potential adverse side effects from the vaccine.

Following reports of Kalocivir's limited success in treating patients with severe SPARS infections, the FDA issued an Emergency Use Authorization (EUA) for the antiviral. Kalocivir had been evaluated as a therapeutic for SARS and MERS, and several million doses were maintained in the SNS, which could be deployed as necessary while production capacity was established to meet demand.

RESPONSE SCENARIO TIMELINE

2026

January

The FDA, CDC, and NIH provided seemingly conflicting communications regarding the safety and efficacy of Kalocivir.

In the United States, public anxiety around SPARS resulted in extensive use of Kalocivir, frequent self-reporting of SPARS symptoms, and a surge in demand for medical care.

By late January SPARS was detected in 42 countries and all US states.

February

A lack of cultural competency in FDA and other governmental communication became apparent among various ethnic groups in the United States.

A video of 3-year-old vomiting and fainting after taking a dose of Kalocivir was widely and rapidly spread via social media, strengthening opposition to the EUA.

March

The FDA released updated efficacy and side effect information for Kalocivir. Social media reports regarding Kalocivir were more ubiquitous than official releases.

The UK Medicines and Healthcare Products Regulatory Agency and the European Medicines Agency jointly authorized the emergency use of a new antiviral, VMax, in the United Kingdom and throughout the Eurpoean Union. Some Americans attempted to gain access to VMax online or by traveling to Europe.

April

The CDC publicized an updated (and significantly lower) case fatality rate in the United States; the perception of lesser risk triggered a drop in public interest.

May

Production of Corovax, the SPARS vaccine produced by CynBio, was well underway.

Federal agencies initiated a communications campaign using well-known public figures with mixed results. Polls indicated a 15-23% increase in SPARS and Kalocivir knowledge nationwide. Hip hop icon BZee had success promoting public health messaging with an online video clip, but he lost credibility when he compared volunteers for Corovax trials with "volunteers" from the Tuskegee syphilis study. Similarly, former President Bennett provided a non-committal response when asked if she would want Kalocivir for her new grandson.

RESPONSE SCENARIO TIMELINE

2026

May

Public health agencies discovered that a relatively new social media platform, UNEQL, was being used as a primary means of communication in college-aged populations.

June

Corovax entered the final stage of its expedited review, and production capacity was increased. Ten million doses were expected to be available by July with fifty million more in August.

The CDC Advisory Committee on Immunization Practice (ACIP) announced vaccine priority groups. Healthcare providers were not included as a priority, inciting protests by doctors and nurses across the country.

In order to prioritize distribution of limited Corovax supply, the federal government requested that states report summary information for patient electronic health records (EHRs) to estimate the number of individuals in high-risk populations. This effort was met with resistance from the public, who protested the federal government accessing their private medical information.

July

A week prior to initiating the nationwide vaccination program, damage to a power grid in the Pacific Northwest resulted in a widespread power outage that lasted two weeks. State and local public health agencies initiated communications programs using posters and flyers to promote the vaccination program in the absence of electronic media.

Social media efforts across the country promoted the vaccination campaign, and crowdsourced data helped to increase efficiency in distributing the vaccine.

August

The Corovax vaccination program met resistance from several groups: alternative medicine proponents, Muslims, African Americans, and anti-vaccination activists. Initially operating independently, these groups banded together via social media to increase their influence.

September

Japan announced that it would not approve Corovax for use in Japan in favor of developing and producing its own vaccine.

October

College students predominantly on the east and west coasts, staged protests against the unequal global availability of Corovax. Vaccination rates among these students were below average for college students in other areas of the country.

RESPONSE SCENARIO TIMELINE

2026

November

The anti-anti-vaccine movement, formed in the wake of the 2015 measles outbreak in the United States, reignited their efforts to combat the anti-vaccination super-group. The FDA, CDC and other federal agencies also redoubled their communications efforts to promote the Corovax campaign.

An increasing number of post-SPARS pneumonia cases were reported across the country.

December

The nationwide vaccination program was expanded beyond the initial priority populations to include the rest of the country.

Federal agencies initiated a vaccination communication program involving targeted online advertisements.

2027

February

Post-SPARS pneumonia cases stressed inventories of antibiotics across the country. The HHS Secretary authorized distribution of the oldest lots of antibiotics from the SNS to supplement the antibiotic supply nationwide.

Tests of antibiotics in the SNS inventory determined that 94% of the remaining antibiotics in the oldest lots maintained sufficient potency. Tests conducted in August 2026 provided the basis for extending the expiration of these lots from 2027 to 2029.

March

Rumors spread via traditional and social media that the government was dispensing expired antibiotics.

Alyssa Karpowitz, a leader in the natural medicine movement, sought medical care at an emergency department after natural remedies failed to resolve her son's bacterial pneumonia. After successful treatment with proper antibiotics from the SNS supply, she touted the benefits of "expired" antibiotics in her social media circles.

COMMUNICATION DILEMMAS

RESPONSE SCENARIO

1) Engendering public trust and a sense of self-efficacy when a crisis is still evolving and critical health information is incomplete **(Page 4)**

2) Responding to public and political pressure to share information about potential MCMs in the development pipeline even though information may be incomplete or proprietary **(Page 8)**

3) Maintaining trust in government processes for ensuring the timely development of safe and effective vaccines when novel threats arise **(Page 11)**

4) Harmonizing inconsistent messaging across health agencies **(Page 14)**

5) Appropriately tailoring public health messages to address the concerns and culture of specific communities **(Page 14)**

6) Responding to the power of graphic images of a child in distress: one story that is elevated to a population-level problem **(Page 19)**

7) Responding to demand for an alternative antiviral drug not available in the United States **(Page 23)**

8) Responding to misinformation or doubt about a MCM generated by a prominent public figure **(Page 25)**

9) Overlooking communication platforms used by specific groups; quickly gaining fluency and effectively engaging the public using a new media platform **(Page 29)**

10) Responding to public criticism about potential unequal access to MCMs like Kalocivir **(Page 29)**

COMMUNICATION DILEMMAS

RESPONSE SCENARIO

11) Maintaining public support after changing positions on MCM safety and efficacy **(Page 31)**

12) Communicating the need for and reasoning behind the prioritization of scarce resources **(Page 34)**

13) Publicizing MCM programs and availability to promote uptake and efficient distribution **(Page 37)**

14) Providing real-time data on vaccine availability to align MCM supply with public demand **(Page 37)**

15) Maintaining consistent messaging across electronic and non-electronic media and implementing a secondary communications plan if electronic media are not available **(Page 40)**

16) Addressing multiple independent MCM concerns simultaneously **(Page 43)**

17) Meeting the information needs of citizens who come from diverse cultural, social, and demographic backgrounds and who may have varying degrees of trust in health authorities **(Page 43)**

18) Supporting the current MCM product in the face of opposition from a foreign regulatory agency **(Page 49)**

19) Responding to complex ethical issues that are beyond the United States government's control **(Page 52)**

20) Responding to questions regarding safety and efficacy of drugs that have extended shelf lives **(Page 55)**

RECOVERY SCENARIO TIMELINE

2027

April

Crowd-sourced and independent epidemiology analysis of Corovax side effects conflicted with official federal reports. The independent analyses gained popularity in traditional and social media due to visual presentation and interactive content. Government attempts to respond with data and press releases largely failed.

May

Reports of Corovax side effects began to gain traction. Several parents of children who experienced neurological symptoms after receiving the vaccination sued the federal government and CynBio. The lawsuit was dropped when they learned of compensation funds available through the PREP Act and the National Vaccine Injury Compensation Trust Fund.

November

Initial reports of long-term side effects of the Corovax vaccine emerged. These reports arose primarily from those in the initial priority (high-risk) populations and were few in number. With little available data and numerous pre-existing conditions, initial studies were unable to identify a statistically significant association with any long-term effects. Claims for compensation were placed on indefinite hold until further data could be gathered and analysis completed.

In response to public demand for long-term side effect compensation, the HHS Secretary invited Congress to conduct an independent investigation of the federal compensation process to alleviate concerns of impropriety.

The public and media pressured Congress to increase the funds authorized for compensation under the PREP Act.

2028

August

The SPARS pandemic was officially declared to be over; however, experts remain concerned about domestic animal reservoirs and the potential for future outbreaks.

COMMUNICATION DILEMMAS

RECOVERY SCENARIO

1) Communicating with the public about trustworthy sources of data and options for legal recourse in a climate of mistrust **(Page 59)**

2) Bringing a sense of resolution to a period of crisis while striking a balance between the need to affirm collective grief/loss and the need to move forward **(Page 63)**

3) Institutionalizing communications lessons from the 2025-2028 SPARS pandemic **(Page 66)**



Johns Hopkins Center for Health Security

621 East Pratt Street

Suite 210

Baltimore, MD 21202

TEL: 443.573-3304

FAX: 443.573.3305

www.centerforhealthsecurity.org