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The Saint Paul Acute Respiratory Syndrome Pandemic:

A Fictional Scenario to Strengthen Risk Communication for the Medical Countermeasures of Tomorrow

Johns Hopkins Center for Health Security

Introduction & Welcome

Agenda

- 10:30 - 10:40 Introductions
- 10:40 – 11:00 SPARS scenario overview
- Project background
 - Development process
 - Narrative outline
- 11:00 – 11:40 Small groups/workshopping exercise
- Response: “Going Viral”
 - Recovery: “Vaccine Injury”
- 11:40 – 12:00 Whole room discussion

Session Objectives

- Gain familiarity with the SPARS pandemic scenario: background, aims, methods, and core narrative
- Role play with the SPARS scenario as a means to:
 - Imagine the dynamic & conflicted circumstances in which communication about medical countermeasures (MCM) can occur in an emergency
 - Anticipate MCM communication dilemmas that could plausibly emerge in the not-so-distant future
 - Rehearse how to manage these communication dilemmas and weigh the implications of those actions

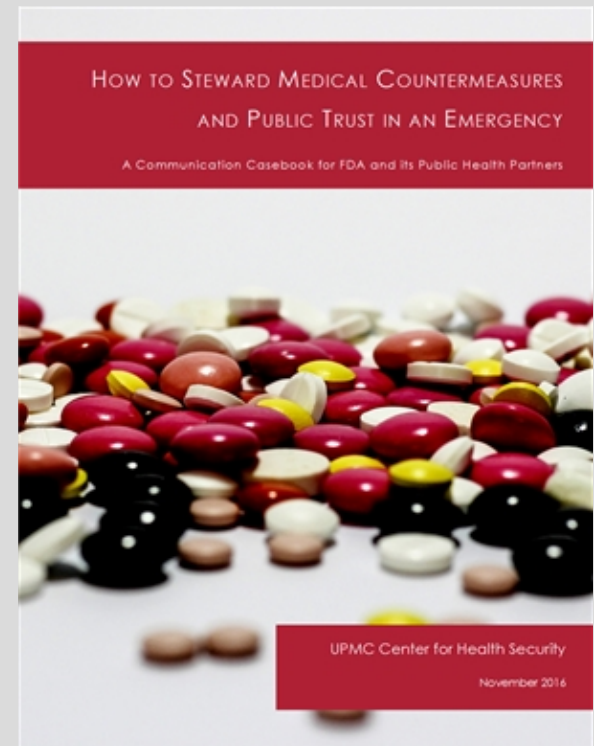
Who is in the Room?

- Public health practitioners: local, state, federal?
- Public information officers?
- Health educators?
- PHEP coordinators?
- MCM distribution coordinators?
- Researchers?
- Others?

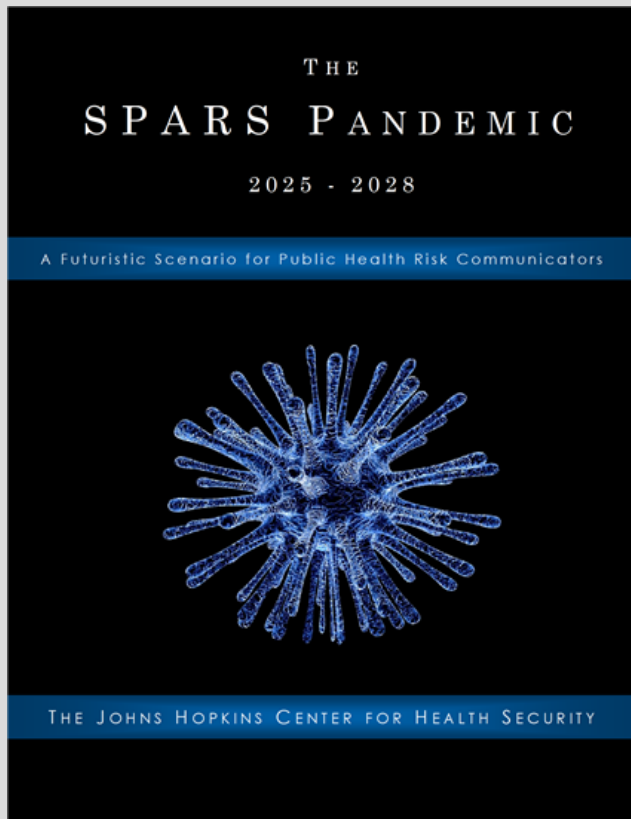
SPARS Aims & Methods

Project Background, 2014-2016

- Recommend practical & strategic approaches to manage MCM communication dilemmas better in emergency situations
- Expert Working Group on MCM Emergency Communication Strategies: communication, MCMs, medicine, public health, pharmacy, emergency managers
- Casebook (eg, Ebola, Fukushima, anthrax letters, H1N1 pandemic) to illustrate principles and conditions for effective MCM communication



SPARS Scenario, 2015-2017



- Forward-looking, fictional scenario to complement retrospective study of actual health crises
- Informed by SME input, past MCM crises, contemporary media reports, and scholarly literature in sociology, emergency preparedness, health education, risk/crisis communication
- Divided into response & recovery phases; comprised of 19 mini-chapters that spotlight a total of 23 dilemmas
- Externally reviewed

Value of Scenario-Based Learning

- Concrete story elements make more general, abstract principles about optimal risk and crisis communication more immediate and meaningful.
- Absent an actual emergency, readers can mentally rehearse responses to certain situations and think through their potential outcomes.
- Scenarios help promote reflective thinking and reinforce users' ability to apply that knowledge in future settings.

Scenario Generation Process

Ogilvy & Schwartz 2004

#1 - Identify focal issue : MCM emergency communication over the next 10 years

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graph TD; A["#1 - Identify focal issue : MCM emergency communication over the next 10 years"] --> B["#2 - Brainstorm 'key drivers' (social, technological, political, economic, and natural)"]; B --> C["#3 - Sort drivers into 'predetermined trends' and 'critical uncertainties'"]; C --> D["#4 - Select top 2 uncertainties and build 2x2 matrix (info access by social diversity)"]; D --> E["#5 - Select 1 of 4 futures to elaborate a complete storyline: 'Echo-chamber'"];
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#2 - Brainstorm "key drivers" (social, technological, political, economic, and natural)

#3 - Sort drivers into "predetermined trends" and "critical uncertainties"

#4 - Select top 2 uncertainties and build 2x2 matrix (info access by social diversity)

#5 - Select 1 of 4 futures to elaborate a complete storyline: "Echo-chamber"

Scenario Framework: 4 possible futures in which SPARS unfolds

Unbridled access and openness to information technology (including social media)			
Isolated communities, social fragmentation	"Echo-chamber"	"UN Security Council"	Diverse but integrated communities, "melting pot"
	"Solitary Confinement"	"Shangri-La"	
Erratic, unequal access to information technology (including social media)			

2025: The “Echo Chamber”

- Near-universal access to wireless internet & info technology
- Diverse, fragmented society: groups seek out self-affirming news & views
- Voracious public appetites for instantaneous answers & info-graphics
- Rapid evolution and extinction of new communication platforms & channels
- Cultural trends driven by social media: DIY, flash mobs, Arab Spring-type organizing
- Slow adoption of new technology among government agencies



SPARS Narrative Outline

Key Players

- **Alyssa Karpowitz:** an outspoken anti-vaccination activist and natural medicine proponent
- **EpiGirl:** a popular science blogger and amateur data scientist
- **Patient from NC:** a hospitalized child who experiences severe adverse side effects after receiving a medical countermeasure
- **CDC & FDA communications teams:** coordinate public health messaging via traditional and social media to new developments in the SPARS pandemic

Social Media

New platform:

- **ZapQ:** 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

Established platforms:

- Facebook
- Twitter
- Snapchat

The SPARS Outbreak Begins

- **Oct 2025:** A cluster of deaths is reported in St. Paul, MN. The patients die of a novel coronavirus infection, later dubbed St. Paul Acute Respiratory Syndrome, or SPARS.
- **Nov 2025:** The World Health Organization declares SPARS a Public Health Emergency of International Concern.
- **Nov-Dec 2025:** CDC disseminates standard flu prevention and awareness messaging via traditional media, Facebook, Twitter, Reddit, and ZapQ.

St. Paul Acute Respiratory Syndrome Coronavirus (SPARS)

Mild cases: cough, fever, headaches, malaise

Severe cases: could lead to pneumonia or hypoxia requiring hospitalization

Initially reported case fatality rate: 4.7%

January 2026: Kalocivir

- Antiviral drug initially developed as a therapeutic for SARS and MERS
- Made available by FDA under Expanded Access protocol
- Some demonstrated efficacy against other coronaviruses

March 2026: VMax

- An antiviral against SPARS approved by the European Medicines Agency
- Side effects: some reports of severe GI distress
- Not available in the US, leading some concerned Americans to obtain online prescriptions or travel to Europe to obtain the drug

GMI Vaccine

- Animal vaccine used in Southeast Asia since 2021 to protect ungulates from SPARS-like illness
- Side effects in animals: swollen legs, severe joint pain, encephalitis, seizures, deaths
- Federal authorities award a contract to CynBio, a US pharmaceutical company, to develop a SPARS vaccine based on the GMI model for human use
- HHS Secretary invokes the Public Readiness and Emergency Preparedness (PREP) Act to provide CynBio with liability protection

July 2026: Corovax

- New vaccine designed by CynBio (based on GMI model) to offer protection from SPARS in human populations
- Underwent accelerated clinical trials and expedited review in the US
- Priority groups: children, young adults with chronic respiratory conditions, pregnant women
- Challenges: limited number of available doses, distribution, barriers to primary care

Response Dilemma

“Going Viral”

- FDA issues an EUA for Kalocivir
 - Several million doses currently available in SNS
- Reports of negative side effects begin to surface
 - A video of a 3-year-old boy projectile vomiting, choking, and fainting immediately after taking Kalocivir goes viral
 - #AntiviralsDontWork #DontTakeTheDrugs #NaturalCuresAreBetter
 - Video is shared widely across social media

“Going Viral”

- The vomiting video is one of the most widely shared clips among students
- Several days after the video goes viral, FDA & CDC disseminate safety information about Kalocivir across traditional & social media
 - Agencies are unable to access invitation-only social media groups

Recovery Dilemma

“Vaccine Injury”

- The United States is solidly in the recovery phase of the pandemic
- SPARS caseloads across the country have diminished
- Public focus has shifted to the potential side effects of SPARS MCMs, including Corovax
 - Corovax, the FDA-approved vaccine for SPARS, has been released for more than nine months

“Vaccine Injury”

- Claims of Corovax-associated adverse effects begin to emerge
 - Reports of children developing neurological symptoms: encephalitis leading to mental retardation
- Many parents demand removal of PREP liability protections for CynBio

Small Groups/Workshop

Break into 4 small groups (2 response, 2 recovery)

Set up seats in circle

Agenda

- 11:00 – 11:10 Small group reading time
- 11:10 – 11:25 Discuss food for thought questions
- 11:25 – 11:40 Additional discussion in preparation for large group exchange

SPARS Report – Online

http://www.centerforhealthsecurity.org/our-work/pubs_archive/pubs-pdfs/2017/spars-pandemic-scenario.pdf