DON'T FORGET TO INFORM THE PUBLIC
WHY MESSAGING MATTERS

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Who Is HDIAC?

Who Am I?

Primarily, I am a *researcher.*

The disconnect between the intended message and the one received by the population has emerged time and again throughout research and during many events.

Research: infectious disease response, nuclear energy, natural/manmade disasters

Exercises: migrant populations, sentiment analysis, combat operations

Photo credit: HDIAC

The Effects of Misinformation in Crises

Type	Crisis	Problems / Misinformation	Harm	Details
Health Care Crises	Zika (2016)	Info overload in short period	Confusion about severity, immunity, vaccines	Harmful information overload causes problems facing infection diseases and puts health at risk
	Anti-vax situations	Poor public confidence in vaccination	Exposure to risks of diseases	The decline of vaccine coverage: MMR in Europe (2010), HepB in France, H1N1 in many countries (2009), 300% increase in measles (2019)
Natural Disasters	Hurricane Harvey (2017)	**False information**	**Delayed evacuation**	Rumor: officials asking immigration status
	Hurricane Irma (2017)	**False Information**	**Delayed evacuation**	Rumor: survivors would receive generators
	Louisiana floods (2016)	Information overload	Confusion between legitimate and fake info	Misinformation from Social Media messages confused FEMA and the Red Cross with each other

Note: Information from this table was taken from Tran et al. [1].

Case Studies

Three case studies to review:

1. Kingston coal fly ash spill (2008)
2. Mpox (2022)
3. Monongalia County, WV, syphilis response (2020)

KINGSTON COAL FLY ASH SPILL

December 22, 2008

Background

From the Environmental Protection Agency: "On December 22, 2008, at approximately 1:00 a.m., a failure of the northwest side of a dike used to contain coal ash occurred at the dewatering area of the Tennessee Valley Authority (TVA) Kingston Fossil Plant, located at 714 Swan Pond Road in Harriman, Roane County, Tennessee. Subsequent to the dike failure, approximately 5.4 million cubic yards (CYs) of coal ash was released into Swan Pond Embayment and three adjacent sloughs, eventually spilling into the main Emory River channel" [2].

Public Messaging

[Tennessee Valley Authority spokesman Gil] Francis stated "in terms of toxicity, **until an analysis comes in, you can't call it toxic**." He continued by saying that "it does have some heavy metals within it, but **it's not toxic or anything**" [3].

This does not square with science. For example, a 2005 study found that combustion-derived nanoparticles, including coal fly ash, were "a hazard to the lungs through their potential to cause oxidative stress, inflammation and **cancer**; they also have the **potential to redistribute to other organs** following pulmonary deposition" [4].

Image source: U.S. EPA [5]

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More Missteps

Poor messaging continued to plague the TVA response, with later events further diminishing this perception.

- TVA CEO [6]
  - Referred to disaster as an "inconvenience"
  - Prematurely declared situation "safe"

- TVA SVP for Environmental Policy [6]
  - Called coal waste "inert"
  - Described the event as "a challenging event to restore the community back to normalcy"

- TVA spokesperson [3]
  - "Not toxic or anything"
  - Immediately followed his claim that an analysis was not complete

Effects

Immediate

- Dozens of homes destroyed
- Coal ash spilled into local rivers
- Wildlife killed and displaced
- 300 acres covered
- TVA response questioned, with answers not satisfying residents

Long Term

- **More than 30 cleanup workers have died**, and more than 250 became ill
- Houses demolished; area converted into park
- **Coal ash relocation questioned**
- TVA credibility lost in eyes of public

Image: U.S. EPA [5]

Mpox Outbreak 2022

Image Source: Shutterstock

Background

From the World Health Organization: "Since early May 2022, cases of mpox (monkeypox) have been reported from countries where the disease is not endemic, and continue to be reported in several endemic countries. Most confirmed cases with travel history reported travel to countries in Europe and North America, rather than West or Central Africa where the mpox virus is endemic. This is the first time that many mpox cases and clusters have been reported concurrently in non-endemic and endemic countries in widely disparate geographical areas" [9].

Power of Social Media

Social media's (SM's) curated feed may lead to misinformation being presented to those with an interest.

Research on social media's role in shaping perceptions and behaviors during the mpox outbreak highlights the presence of prejudices and stereotypes. [10]

For example, a brief analysis of 153 short-form videos (TikTok, FB Reels) found 11 different conspiracy theory threads. 153 videos received nearly 11.5 million views, over 70k likes, and 13k **shares**. [11]

- More likely to believe something that is shared from someone you trust

- Shares = "Going viral"

- Distrust of government sources for disease information

Messy Framework

Confronting public problems is often messy and unplanned

- Constantly changing information makes it hard to focus on messaging [12]

- Lack of SM savvy staff and little authority delays postings [13]

- Difficulty in challenging public distrust of government and loud mis/disinformation [14]

Complicated to develop a strategy in this messy environment. Some SM users may prefer this "messiness" [15]

Now What?

If a social media consumer is not accepting the information provided by government agencies, or that information is not reaching the audience, what else can be done?

Image credit: OCAL/Clker

Image credit: USMC

Syphilis

Targeted Messaging: A Success Story

Monongalia County, WV – 2019-2020 [16]

- The county, pop. ~100k, noted an outbreak of syphilis in Spring, 2019

- County health officials contacted dating apps

- Only Grindr, geared towards LGBTQ+, agreed to run targeted messaging for free

Demographics:
- Almost exclusively men
- 24-28 years old
- Meeting up anonymously through apps

Location of Monongalia County in West Virginia, National Atlas via Wikipedia

Results

- First message sent to Grindr users on April 24, 2019

- During the first 9 hours, ~5k saw the message and 12% clicked

- The message eventually reached 66,000 unique individuals, with a final click-through-rate (CTR) of 7.16%

For comparison: YouTube average CTR for "Government and Advocacy" is 0.07%

Benefits
The right people got the message
Uninterested parties could not launch SM campaigns counter to government messaging
Many sought testing as a result of the campaign

Information taken from Monongalia County, WV [16]

The Audience: Everyone

Public Health in a Displaced Persons Camp – Table Top Exercise

Image source: Canva

Influencing the Influencers

Proper communication – partner with people heretofore untapped: social media influencers.

In 2022, nonprofits and influencers - in addition to government organizations – sent important information to affected populations through Social Media. [15]

Governments can control the narrative without directing the narrative.

Influencers can serve as network hubs in

minoritized communities in ways governments may not. [15]

"…an influencer should not be viewed as a spokesperson for your organization. Rather, influencer programs should be viewed as any other media tactic that could be used within a communication plan." – U.S. Food and Drug Administration [17]
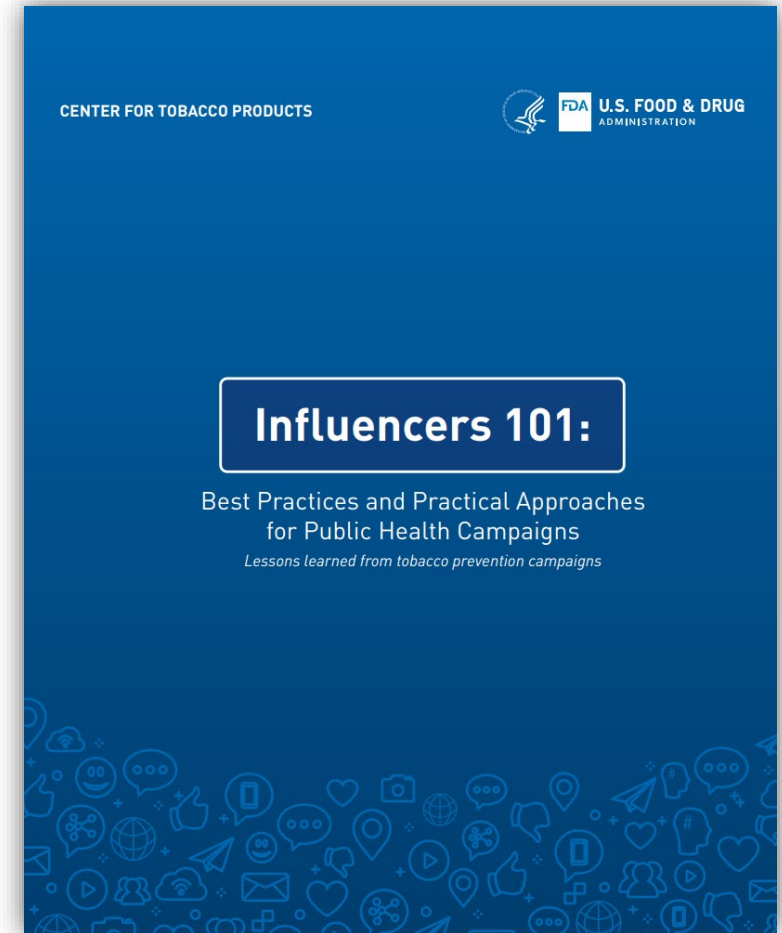
CENTER FOR TOBACCO PRODUCTS

FDA U.S. FOOD & DRUG ADMINISTRATION

Influencers 101:

Best Practices and Practical Approaches for Public Health Campaigns

Lessons learned from tobacco prevention campaigns

Image Credit: U.S. FDA [17]

Saved Rounds

Image credit: USMC

- Refugee Camps
- Avian Flu
- Three Mile Island
- Johnson & Johnson Recall
- COVID-19

QUESTIONS OR COMMENTS?

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