Advancing Health Communication Science and Practice

Lead ICOs: NCI, NIMH, OBSSR

Working Group: FIC, NCATS, NCCIH, NCI, NEI, NHLBI, NIA, NIAID, NIAMS, NICHD, NIDA, NIDCR, NIEHS, NIMH, NIMHD, NINDS, NINR, NLM, OBSSR, ONR

OSC (Common Fund)



Concept Clearance: New Common Fund Program

TITLE: Advancing Health Communication Science and Practice

Objective: To investigate, develop, test, and disseminate new approaches for effective and equitable health communication, including measuring communication exposure and impact, addressing misinformation, engaging communities, and building trust.

Initiatives:

- 1. Research Network
- 2. Methods & Measurement Research Projects
- 3. Coordination & Dissemination Center

Funds Available: \$30M per year

Program Duration: 5 years

Council Action: Vote for approval of the concept

Program Co-Chairs and Coordinators



Program Co-Chairs



Joshua Gordon, MD, PhD Director, NIMH



Christine Hunter, PhD Acting Director, OBSSR



William Klein, PhD Associate Director of Behavioral Research, NCI

Working Group Coordinators



Kristin Brethel-Haurwitz, PhD **OBSSR**



NIMH



Collene Lawhorn, PhD Wen-Ying Sylvia Chou, PhD, MPH

Common Fund Program Leaders



Nadra Tyus, DrPH, MPH OSC



Stephanie Courchesne-Schlink, PhD OSC

Working Group Members



Sara Amolegbe, NIEHS

Stacey Arnesen, NLM

Frances Bevington, NINR

Sekai Chideya-Chihota, NCCIH

Michelle Doose, NIMHD

William Elwood, OBSSR

Alissa Gallagher, NINDS

Anna Gaysynsky, NCI

Stephanie George, NIAMS

Beth Jaworski, OBSSR

Lenora Johnson, NHLBI

Nancy Jones, NIMHD

Christopher Lynch, ONR

Katelynn Milora, OSC

Elizabeth Necka, NIA

Steven Pittenger, NCATS

Ronna Popkin, NICHD

Anne Rancourt, NIDA

Dianne Rausch, NIMH

Elise Rice, NIDCR

Melissa Riddle, NIDCR

Alexa Romberg, NIDA

Michael Stirratt, NIMH

Luke Stoeckel, NIA

Rachel Sturke, FIC

Robin Vanderpool, NCI

Cheri Wiggs, NEI

Natalie Zeigler, NIMH

Xinzhi Zhang, NHLBI

Sheryl Zwerski, NIAID

Why Health Communication?



Online misinformation is linked to early COVID-19 vaccination hesitancy and refusal

Francesco Pierri , Brea L. Perry, Matthew R. DeVerna, Kai-Cheng Yang, Alessandro Flammini, Filippo Menczer & John Bryden

Scientific Reports 12, Article number: 5966 (2022) | Cite this article

Ignoring behavioral and social sciences undermines the U.S. response to Covid-19

By Judith D. Auerbach and Andrew D. Forsyth March 9, 2022

STAT

"We got the biological science right, but we didn't get the social science right"

> Ashish Jha on the pandemic CNBC, 7/7/22

How cynicism and misinformation add to the emotional costs of gun violence

Mary Blankenship and Carol Graham · Wednesday, June 15, 2022

BROOKINGS

Scientists need to better communicate the links between pandemics and global environmental change

Matthias C. Rillig ☑, Anika Lehmann, Michael S. Bank, Kenneth A. Gould & Hauke R. Heekeren

Nature Ecology & Evolution 5, 1466-1467 (2021) | Cite this article

The Washington Post

Facebook ads push misinformation about HIV prevention drugs, LGBT activists say, 'harming public health'



How poor communication exacerbates health inequities - and what to do about it

BROOKINGS

We've been led to believe that an occasional glass of wine might be better than abstaining from alcohol altogether, but that might not be the case. B B C

"...there are things about **human behavior** that I don't think we had invested enough into understanding. We basically have seen the accurate medical information overtaken...by the inaccurate conspiracies and false information.... We used to think that if knowledge was made available from credible sources, it would win the day. That's not happening now." Francis Collins on NPR, 12/7/21

Illustrative Example: Research on Debunking Misinformation



- Does debunking backfire?
- Is correction effective?
- Does it work under realworld conditions?
- What other strategies can mitigate the impact of misinformation?





Open Access

Can corrections spread misinformation to new audiences? Testing for the elusive familiarity backfire effect

Ullrich K. H. Ecker^{1*}, Stephan Lewandowsky^{1,2} and Matthew Chadwick¹

Correction as a Solution for Health Misinformation on Social Media Research Article

on social Medic

Emily K Vraga ¹, Leticia Bode ¹

Evaluating the Impact of Attempts to Correct Health Misinformation on Social Media: A Meta-Analysis

Nathan Walter

, John J. Brooks, Camille J. Saucier & Sapna Suresh
Pages 1776-1784 | Published online: 06 Aug 2020



Original Paper

The Challenge of Debunking Health Misinformation in Dynamic Social Media Conversations: Online Randomized Study of Public Masking During COVID-19

Key Gaps Identified from Planning Activities: January-June 2022



- Community-engaged, timely and useful communication research
- Science of trust and mistrust within diverse communities
- Health and science literacy
- Addressing the spread of health-related misinformation
- Innovative **implementation structures and partnerships** to promote **equitable** health communication
- Workforce development for researchers and communicators

Planning activities:

- Federal partner listening sessions
- Expert workshop (May 2022)
- An RFI with >50 responses
- Portfolio analysis
- Landscape analysis, including review of previous largescale communication initiatives

Why a Common Fund Program?



Cross-disease, synergistic & cross-cutting

- Health communication is a vital yet underfunded area across all ICs and health topics
- Traditional linear models of translational research are inadequate

Transformative & catalytic to other areas of behavioral and biomedical science

- Applicability of iterative team science and community-engaged research
- Practical solutions, training of a diverse workforce, and active community-engaged outreach and dissemination

Unique role of the NIH

Coordinated and accelerated research in health-relevant communication and misinformation

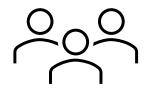
Program Goals



To investigate, develop, test, and disseminate new approaches for effective and equitable health communication, including measuring communication exposure and impact, addressing misinformation, engaging communities, and building trust.











Program Structure



Research Network

Integrated and iterative research across translational continuum to improve health communication practice, foster health literacy, and address misinformation

Coordination & Dissemination Center

Coordination and information sharing across the consortium and dissemination of best practices across audiences

Methods & Measurement Research Projects

Development and testing of innovative measures of communication (e.g., exposure, impact, health/science literacy, mistrust)

Priorities for Research Topics and Approaches



Cross-disease, Iterative team cross-behavior, Trust, mistrust, science across cross-sector, trustworthiness translational and continuum Health and interdisciplinary Community science media informed and literacy and engaged numeracy Communication Responsive, Decision making use-inspired, inequities and under health and applicable uncertainty disparities **Emphasis** on to end users Misinformation behavioral and outcomes and disinformation behavior change

Research Network



- Ecologically-valid, iterative learning cycle research projects across the translational continuum and disciplines to develop and test new health communication approaches that are sustainable and can be adopted by future health communication researchers and in the broader behavior and social science research (BSSR) fields
- Encourage diversity in health communication research workforce
- Sub-initiative: Opportunity funds for rapid-response health communication research tackling new and emerging health communication challenges (see appendix for details)

Deliverables

- Effective health communication approaches (e.g., how to meet the needs of the new communication ecosystem, how to foster health literacy, how to identify and mitigate misinformation) with new understanding of what approaches work for whom, under what circumstances, and why
- A cadre of health communication researchers from diverse backgrounds and disciplines

Full-Cycle Translational Framework



To understand the role of emotions, confirmation bias, and social norms

Basic

Test basic mechanisms and processes that drive or inhibit communication

Intervention

Early-phase intervention studies

To decrease responses of outrage and encourage checking alternate sources

Implementation

Maximum and equitable benefit with an emphasis on real-world applicability and sustainability

To scale up mitigation efforts across select social networks through partnership with marketing firms and influencers

Methods and Measurement Research Projects



- Development and testing of innovative methods and measures of health communication exposure, impact, context, predictors (e.g., health and science literacy)
- Assess quality of information (e.g., credibility, interpretability, and usability across audiences)
- Partnerships with technology/social media platforms, marketing experts, and communicators of health information
- Measures developed by this activity to be shared with and adopted by the full-cycle research activities (when appropriate) for additional testing and validation

Deliverables

• Validated methods and measures for factors relevant to the current health communication ecosystem, including exposure to messages, misinformation, impact of communication exposure, the spread of misinformation, health and science literacy, and other predictors of communication outcomes

Coordination and Dissemination Center



- Consortium-wide coordination and convening to foster collaborations, share results, tackle shared challenges, and facilitate cross-study learning
- Collect, compile, and disseminate evidence-based findings, approaches, and other resources from research and measurement initiatives
- Develop educational/training materials for health communication researchers
- Conduct active outreach to and technical assistance for various audiences, including health
 communication researchers and health communicators (e.g., scientists, health practitioners, journalists,
 community leaders)
- Offer expert guidance in health equity and community engaged research

Deliverables

- A repository of evidence-based measures, tools, and other resources
- Active dissemination of best practices to health communication researchers and other audiences influenced by health communication research
- Robust assessment of the uptake, use, and impact of all program resources

Budget



Budget Phase I: \$154.3M over 5 years	FY24	FY25	FY26	FY27	FY28	Total
Initiative 1: Research Network (~15-20 projects)	\$25M	\$25M	\$22M	\$22M	\$22M	\$116M
Sub-initiative funding begins in year 3 (\$200K x 15 sites)	\$0	\$0	\$3M	\$3M	\$3M	\$9M
Initiative 2: Methods and Measurement Research Projects (6-8 projects)	\$2M	\$2M	\$2M	\$2M	\$2M	\$10M
Initiative 3: Coordination and Dissemination Center	\$3M	\$3M	\$3M	\$3M	\$3M	\$15M
RMS – staff salary, workshops, travel	\$300K	\$1M	\$1M	\$1M	\$1M	\$4.3M
Total	\$30.3M	\$31M	\$31M	\$31M	\$31M	\$154.3M

Council Action: Vote for approval of the concept for Advancing Health Communication Science and Practice

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Appendices

Defining health communication & misinformation



Health communication: approaches that seek to inform and influence individual and community decisions that enhance health^{1,2}.

Health communication science: inter-disciplinary research and theory development on the processes, effects, and impact of health communication.

Health misinformation*: any health-related claim of fact that is false, inaccurate, or misleading according to the best available evidence at the time^{3,4,5}.

*Disinformation: a coordinated or deliberate effort to spread misinformation in order to gain money, power, or reputation⁵.

^{1.} https://www.thecommunityguide.org/topic/health-communication-and-health-information-technology

^{2.} Institute of Medicine. 2002. Speaking of Health: Assessing Health Communication Strategies for Diverse Populations. Washington, DC: The National Academies Press.https://doi.org/10.17226/10018.

^{3.} Chou, W.-Y. S., Gaysynsky, A., & Cappella, J. N. (2020). Where We Go From Here: Health Misinformation on Social Media. American Journal of Public Health, 110(S3), S273-S275. doi:10.2105/ajph.2020.305905

^{4.} Office of the Surgeon General (OSG). (2021). Confronting Health Misinformation: The U.S. Surgeon General's Advisory on Building a Healthy Information Environment. US Department of Health and Human Services.

^{5.} Kington, R. S., Arnesen, S., Chou, W.-Y. S., Curry, S. J., Lazer, D., & Villarruel, A. M. (2021). Identifying Credible Sources of Health Information in Social Media: Principles and Attributes. *NAM Perspectives*, 10.31478/202107a. doi:10.31478/202107a

Rapid-Response Opportunity Fund



Delayed opportunity fund tackling emerging health communication challenges identified by community/practitioners

- Projects would solicit time-sensitive problems from the community through an application/matching process that allow the researchers and the community to come together to develop/test a short-term campaign/program (< 1 yr), which will be implemented and rigorously evaluated in real-time
- What does it add/Why a sub-component? Leveraging established infrastructure/expertise, this affords the opportunity for more timely and useful solutions to emerging challenges, enabling communities to articulate their challenge/problems and benefit from the wealth of scholarly research that may be relevant and informative to their practices

Table showing distinctions between research projects and rapid response projects:

	Research Project	Rapid-response set-aside
Timeline	5+ years, starting at initiative's Year 1	1 year, starting at Initiative's Year 3
Team	Basic + Applied + translational BSS scientists;	Researchers + a small group of health communication
composition	multidisciplinary and multi-sector collaborators	practitioners or community leader
Problem	Co-determined (a priori) at the time of application	By community leaders at the time of application
definition	preparation	solicitation
*Clarifications	While iterative, Research Projects employ a more common community-engaged cyclical framework	One-level further in the direction of community- engaged research; responds only to a new and emerging
		community-defined communication challenge.