



FAKECT?

Promoting Digital Health Literacy in an Era of New Media and Misinformation

Public Health Summer Institute 2021
Thursday June 24th & Friday June 25th

Post-Summer Institute Resource Package

The 12th annual Public Health Summer Institute, “Fake or Fact? Promoting Digital Health Literacy in an Era of New Media and Misinformation,” took place on Thursday and Friday June 24th & 25th, 2021. The event aimed to bring together public health professionals and providers, students and researchers across numerous health and social service sectors to explore the population health challenges & opportunities related to the dissemination, diffusion and promotion of health information in the digital age.

The goal for the institute was to introduce effective interventions, strategies and practices participants can employ to promote digital literacy in the general population; with special attention paid to threats posed by misinformation and disinformation and strategies to isolate, control and managed these threats. Both large and small group sessions allowed participants to actively engage throughout the two-day event.

The institute curriculum focused on the socio-economic and cultural forces that encourage the spread of health disinformation and their implications for population health - including digital health literacy, health equity, and health literacy, and what positive health impacts and other co-benefits can be developed when accurate health information is disseminated efficiently. Participants explored strategies and toolkits designed to ensure the dissemination of accurate health information to the public and build confidence in their ability to respond to misinformation in a respectful and culturally sensitive manner.

This post-event resource package was created for participants to dive deeper into each session hosted over the two-day event and to encourage all of us to continue to focus our work on the dissemination of accurate health information in the digital age and to promote and support the public in dispelling misinformation effectively.

Playlist of All Recordings of the 2021 Online Public Health Summer Institute

https://youtube.com/playlist?list=PLq_7gL7qJJTEv9nOW5IXD3fIorGsGkCYW



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Webinars, Movies & Videos

Coded Bias (2021). <https://www.imdb.com/title/tt11394170/>

Gouvernement du Québec (2021) Tous dans la même équipe contre la COVID-19. <https://www.youtube.com/watch?v=L6IE6qicPP8>

ImmunizeBC (2020). We Can Be the First - IMMUNIZEBC and HPV. <https://youtu.be/bMNlrWj-9D4>

Journeyman Pictures (2009). The age of stupid. <https://www.youtube.com/watch?v=LIGVjHE5fI0>

Ottawa Public Health (2021) Twitter Mar 12. <https://twitter.com/OttawaHealth/status/1370373335138373637?s=20>

World Health Organization (2020) Supriya Bezbaruah - How have SE Asian countries responded to the infodemic. https://www.youtube.com/watch?app=desktop&v=UVyHAnea_cc

World Health Organization (2021) 4th WHO Infodemic Management Conference: Ms. Tina Purnat, Ms. Amy Wright and Dr. Ève Dubé. <https://www.youtube.com/watch?app=desktop&v=mSUJ9UPHIIk>

World Health Organization (2021) 4th WHO Infodemic Management Conference: Dr Supriya Bezbaruah. <https://www.youtube.com/watch?app=desktop&v=bGAc3YxFlol>

Newspaper & Online Articles

Centers for Disease Control and Prevention (April 27, 2021). "How to talk about COVID-19 vaccines with friends and family." <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/talk-about-vaccines.html>

Finnegan, Gary (May 28, 2019). "Serious Gaming: Can video games turn us into public health players?" Vaccines Today. <https://www.vaccinestoday.eu/stories/serious-gaming-can-video-games-turn-us-into-public-health-players/>

Johansen, N. (July 21, 2020). "Safe sex During Pandemic." Castanet. <https://www.castanet.net/news/BC/305811/BCCDC-has-some-tips-for-safe-sex-during-the-COVID-19-pandemic#.Xxc0BoeQMLg.twitter>

McGillivray, Kate (June 15 2021) "20 townhalls later, here's how Toronto's Black scientists' task force reduced vaccine hesitancy." CBC News. <https://www.cbc.ca/news/canada/toronto/20-townhalls-later-here-s-how-toronto-s-black-scientists-task-force-reduced-vaccine-hesitancy-1.6064806?cmp=rss>

Monbiot, G. (June 22, 2021) Absolute Zero. <https://www.monbiot.com/2021/06/22/absolute-zero/>

Robson, David (May 13, 2019). "The '3.5% rule': How a small minority can change the world." BBC. <https://www.bbc.com/future/article/20190513-it-only-takes-35-of-people-to-change-the-world>





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Books

Dasgupta, P. (2021). *The Economics of Biodiversity: the Dasgupta Review*. HM Treasury, London, UK.

Manovich, L. (2002). *The language of new media*. MIT press.

Websites

Canada's Centre for Digital and Media Literacy (2021). "Media Smarts." <https://mediasmarts.ca/>

Centers for Disease Control (2021) "Health Literacy." <https://www.cdc.gov/healthliteracy/index.html>

Centers for Disease Control (2021) "Myths and Facts about COVID-19 Vaccine." <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>

Collective Service (2021) "COVID-19 Behavioural Indicators." <https://www.rcce-collective.net/data/behavioural-indicators/>

David Suzuki Foundation (n.d.) <https://david Suzuki.org/climate-conversation-coach/>

I Boost Immunity (2021). Public Health Association of BC. <https://iboostimmunity.com/>

Immunize Canada (2021). "The CARD System: Comfort – Ask – Relax – Distract." <https://immunize.ca/card-kids-and-adolescents>

Kids Boost Immunity (2021). Public Health Association of BC. <https://kidsboostimmunity.com/>

Media Measurement (2021) "Vaccine Acceptance Tracker." <https://www.mediamasurement.com/vaccine-acceptance-tracker>

Natural Resources Canada (n.d.). "Greenhouse Gas Equivalencies Calculator." <https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/calculator/ghg-calculator.cfm>

Ryerson University Social Media Lab (2021) "COVID-19 Misinformation Fact-checking." <https://covid19misinfo.org/fact-checking/>

Science Up First (2021). "Together Against Misinformation." <https://www.scienceupfirst.com/>

Southcentral Foundation (n.d.). Nuka System of Care. <https://www.southcentralfoundation.com/nuka-system-of-care/>

University of Michigan. "Fake News, Lies and Propaganda: How to sort Fact from Fiction." <https://guides.lib.umich.edu/fakenews>

University of Winnipeg (n.d.). "From Risk to Resilience." Prairie Climate Centre. <https://prairieclimatecentre.ca/>



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Research Papers & Reports

Abel, T., & McQueen, D. (2020). Critical health literacy and the COVID-19 crisis. *Health Promotion International*, 35(6), 1612–1613. <https://doi.org/10.1093/heapro/daaa040>

Ashfield S, Donelle L. (2020) Parental Online Information Access and Childhood Vaccination Decisions in North America: Scoping Review. *Med Internet Res* 22(10):e20002 <https://doi.org/10.2196/20002>

Brewer NT, Chapman GB, Rothman AJ, Leask J, and Kempe A (2017). Increasing vaccination: Putting psychological science into action. *Psychological Science for the Public Interest*. 18(3): 149-207. <https://doi.org/10.1177/1529100618760521>

Carroll, S. (2021) Fact or Fake: Promoting Digital Health Literacy in an Era of New Media and Misinformation. <https://phabc.org/phsi2021-think-piece-extended/>

Caxaj, S., Oudshoorn, A., Ford-Gilboe, M., Webster, F., Donelle, L., Forchuk, C., Berman, H., & Smye, V. (2021). Taking a Stand to Remedy the Inadequacies of Action on Health Equity Exposed by COVID-19. *Nursing Leadership (Toronto, Ont.)*, 34(1), 20–29. <https://doi.org/10.12927/cjnl.2021.26458>

Chatterjee, P., & Yatnatti, S. K. (2020). Intergenerational digital engagement: A way to prevent social isolation during the COVID-19 crisis. *Journal of the American Geriatrics Society (JAGS)*, 68(7), 1394-1395. <https://doi.org/10.1111/jgs.16563>

Chong, Y. Y., Cheng, H. Y., Chan, H. Y. L., Chien, W. T., & Wong, S. Y. S. (2020). COVID-19 pandemic, infodemic and the role of eHealth literacy. *International Journal of Nursing Studies*, 108, 103644. <https://doi.org/https://doi.org/10.1016/j.ijnurstu.2020.103644>

Chrzanowski, J., Sołek, J., Fendler, W., & Jemielniak, D. (2021). Assessing Public Interest Based on Wikipedia's Most Visited Medical Articles During the SARS-CoV-2 Outbreak: Search Trends Analysis. *J Med Internet Res*, 23(4), e26331. <https://doi.org/10.2196/26331>

Chua, A. Y. K., & Banerjee, S. (2018). Intentions to trust and share online health rumors: An experiment with medical professionals. *Computers in Human Behavior*, 87, 1–9. <https://doi.org/https://doi.org/10.1016/j.chb.2018.05.021>

Corbett, B. A., Muscatello, R. A., Klemencic, M. E., & Schwartzman, J. M. (2021). The impact of COVID-19 on stress, anxiety, and coping in youth with and without autism and their parents. *Autism Research*, <https://doi.org/10.1002/aur.2521>

Crawford, A., & Serhal, E. (2020). Digital Health Equity and COVID-19: The Innovation Curve Cannot Reinforce the Social Gradient of Health. *J Med Internet Res*, 22(6), e19361. <https://doi.org/10.2196/19361>

Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G., Stanley, H. E., & Quattrociocchi, W. (n.d.). *The spreading of misinformation online*. <https://doi.org/10.1073/pnas.1517441113>

Dillard J, Shen L. *The SAGE Handbook of Persuasion: Developments in Theory and Practice*. 2nd ed.; 2012. <https://doi.org/10.4135/9781452218410>



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Domenico, G. Di, Sit, J., Ishizaka, A., & Nunan, D. (2021). Fake news, social media and marketing: A systematic review. In *Journal of Business Research* (Vol. 124, pp. 329–341). Elsevier Inc. <https://doi.org/10.1016/j.jbusres.2020.11.037>

Eysenbach, G. (2009). Infodemiology and Infoveillance: Framework for an Emerging Set of Public Health Informatics Methods to Analyze Search, Communication and Publication Behavior on the Internet. *J Med Internet Res*, 11(1), e11. <https://doi.org/10.2196/jmir.1157>

Fuchs, C. (2009). The role of income inequality in a multivariate cross-national analysis of the digital divide. *Social Science Computer Review*, 27(1), 41–58. <https://doi.org/10.1177%2F0894439308321628>

Gerts, D., Shelley, C. D., Parikh, N., Pitts, T., Watson Ross, C., Fairchild, G., Vaquera Chavez, N. Y., & Daughton, A. R. (2021). “Thought I’d Share First” and Other Conspiracy Theory Tweets from the COVID-19 Infodemic: Exploratory Study. *JMIR Public Health Surveillance*, 7(4), e26527. <https://doi.org/10.2196/26527>

Gesser-Edelsburg, A. (2021). Using Narrative Evidence to Convey Health Information on Social Media: The Case of COVID-19. *J Med Internet Res*, 23(3), e24948. <https://doi.org/10.2196/24948>

Griffith, J., Marani, H., & Monkman, H. (2021). COVID-19 Vaccine Hesitancy in Canada: Content Analysis of Tweets Using the Theoretical Domains Framework. *J Med Internet Res*, 23(4), e26874. <https://doi.org/10.2196/26874>

Hughes, D (June 1, 2021). Canada’s Energy Sector: Status, evolution, revenue, employment, production forecasts, emissions and implications for emissions reduction. Canadian Centre for Policy Alternatives. <https://www.policyalternatives.ca/publications/reports/canada%E2%80%99s-energy-sector/>

Karvounides, D., et al. (2021). The intersection of COVID-19, school, and headaches: Problems and solutions. *Headache*, 61(1), 190-201. <https://doi.org/10.1111/head.14038>

Lancet Countdown (2019). The Lancet Countdown on Health and Climate Change Policy brief for Canada. https://storage.googleapis.com/lancet-countdown/2019/11/Lancet-Countdown_Policy-brief-for-Canada_FINAL.pdf

Lazar et al. (2018) The Science of fake news. *Science*. <https://science.sciencemag.org/content/359/6380/1094/tab-pdf>

Martino, F., et al. (2021). The Nature and Extent of Online Marketing by Big Food and Big Alcohol During the COVID-19 Pandemic in Australia: Content Analysis Study. *JMIR Public Health Surveill*, 7(3), e25202. <https://doi.org/10.2196/25202>

Masters R., et al. (2017). “Return on investment of public health interventions: A systematic review.” *J Epidemiol Community Health* (71), p. 827–834. <https://jech.bmj.com/content/jech/71/8/827.full.pdf>

McGuire WJ. The Effectiveness of Supportive and Refutational Defenses in Immunizing and Restoring Beliefs Against Persuasion. *Sociometry*. 1961;24(2):184-197. <https://doi.org/10.2307/2786067>



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Mosby, I. & Swidrovich, J. (2021). "Medical experimentation and the roots of COVID-19 vaccine hesitancy among Indigenous Peoples in Canada." *Canadian Medical Association Journal*. 193(11) P. E381-E383; <https://www.cmaj.ca/content/193/11/E381>

Norman, C. D., & Skinner, H. A. (2006). eHealth Literacy: Essential Skills for Consumer Health in a Networked World. *J Med Internet Res*, 8(2), e9. <https://doi.org/10.2196/jmir.8.2.e9>

Nutbeam, D., & Lloyd, J. E. (2021). Understanding and Responding to Health Literacy as a Social Determinant of Health. *Annual Review of Public Health*, 42(1), 159–173. <https://doi.org/10.1146/annurev-publhealth-090419-102529>

O'Keeffe, P., Johnson, B., & Daley, K. (2021). Continuing the precedent: Financially disadvantaging young people in "unprecedented" COVID-19 times. *The Australian Journal of Social Issues*, <https://doi.org/10.1002/ajs4.152>

Provenzi, L., & Barello, S. (2020). The Science of the Future: Establishing a Citizen-Scientist Collaborative Agenda After Covid-19. *Frontiers in Public Health*, 8, 282. <https://doi.org/10.3389/fpubh.2020.00282>

Rauschenberg, C., Schick, A., Hirjak, D., Seidler, A., Paetzold, I., Apfelbacher, C., Riedel-Heller, S. G., & Reininghaus, U. (2021). Evidence Synthesis of Digital Interventions to Mitigate the Negative Impact of the COVID-19 Pandemic on Public Mental Health: Rapid Meta-review. *J Med Internet Res*, 23(3), e23365. <https://doi.org/10.2196/23365>

Roche, J., Bell, L., Galvão, C., Golumbic, Y. N., Kloetzer, L., Knobon, N., Laakso, M., Lorke, J., Mannion, G., Massetti, L., Mauchline, A., Pata, K., Ruck, A., Taraba, P., & Winter, S. (2020). Citizen Science, Education, and Learning: Challenges and Opportunities. *Frontiers in Sociology*, 5, 14. <https://doi.org/10.3389/fsoc.2020.613814>

Roozenbeek J, Linden S van der, Nygren T. Prebunking interventions based on "inoculation" theory can reduce susceptibility to misinformation across cultures. *Harvard Kennedy School Misinformation Review*. 2020;1(2). <https://doi.org/10.37016/%2Fmr-2020-008>

Sørensen, K., Van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., Brand, H., & European, (HLS-EU) Consortium Health Literacy Project. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, 12(1), 80. <https://doi.org/10.1186/1471-2458-12-80>

Swire-Thompson, B., & Lazer, D. (2020). Public Health and Online Misinformation: Challenges and Recommendations. *Annu. Rev. Public Health*, 41, 433–451. <https://doi.org/10.1146/annurev-publhealth>

Trethewey, S. P. (2020). Strategies to combat medical misinformation on social media. In *Postgraduate Medical Journal* (Vol. 96, Issue 1131, pp. 4–6). <https://doi.org/10.1136/postgradmedj-2019-137201>



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Törnberg P (2018) Echo chambers and viral misinformation: Modeling fake news as complex contagion. *PLoS ONE* 13(9): e0203958. <https://doi.org/10.1371/journal.pone.0203958>

van der Linden, S., Leiserowitz, A., Rosenthal, S. & Maibach, E. (2017). Inoculating the Public against Misinformation about Climate Change. *Global Challenges*. 1. 1600008. <https://doi.org/10.1002/gch2.201600008>

van Deursen, A. J. A. M., van der Zeeuw, A., de Boer, P., Jansen, G., & van Rompay, T. (2021). Digital inequalities in the Internet of Things: differences in attitudes, material access, skills, and usage. *Information, Communication & Society*, 24(2), 258–276. <https://doi.org/10.1080/1369118X.2019.1646777>

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151. <https://doi.org/10.1126/science.aap9559>

Wang, Y., McKee, M., Torbica, A., & Stuckler, D. (2019). Systematic Literature Review on the Spread of Health-related Misinformation on Social Media. In *Social Science and Medicine* (Vol. 240). Elsevier Ltd. <https://doi.org/10.1016/j.socscimed.2019.112552>

Wynes S., & Nicholas K.A. (2019) Climate science curricula in Canadian secondary schools focus on human warming, not scientific consensus, impacts or solutions. *PLOS ONE* 14(7): e0218305. <https://doi.org/10.1371/journal.pone.0218305>

