

# Mitigating Misinformation

## Open Data's Impact on Public Health

Jennifer A. DeVito, Stony Brook University  
& Claudia McGivney, Adelphi University

### What is Open Data?

“Open data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike.”

<https://opendatahandbook.org/guide/en/what-is-open-data/>

#### Open is:

- Available as a whole set
- Easy to access
- Able to be modified
- Free

### Open Data & public health

The free exchange of information is a key component in the process of research and discovery. According to a World Bank statement, “advances in public health throughout the decades, perhaps like no other discipline, have been unpinned by careful research based on data” (Atinc & Badiee, 2011). In addition to making data available to more people, Open Data encourages scientific research and collaboration, product development, and enables informed decision-making (Huston, Edge & Bernier, 2019). Access research data also provides a way to hold public agencies accountable to taxpayers, allows for the assessment of health-related policies and emergency response, and can help improve the delivery of health services (Keralis, 2015). “In the human and environmental health realms, for example, the ability to access and combine diverse data can advance early signal detection, improve analysis and evaluation, inform program and policy development, increase capacity for public participation, enable transparency and improve accountability (Huston, Edge & Bernier, 2019).

Of course, where there is potential, there are also challenges. The creation, sharing, and use of Open Data requires a suitable infrastructure to store and analyze massive amounts of data as well as improved internet access throughout the world to ensure equitable access to the data.

Training in data literacy - the ability to read, analyze, and use data (<https://thedataliteracyproject.org/about>) - is vital. Among researchers there is still reluctance to share data. Legal and ethical concerns include the ownership of the data, privacy and confidentiality, and a lack of standards and guidelines surrounding the use of Open Data. Sharing research and the supporting data may require a mindset shift for those who are used to publishing their research but keeping the data sets private. Understandably, there is concern about how the data is used and whether or not the researchers who created the data sets will receive appropriate credit (Huston, Edge & Bernier, 2019). Despite these concerns, data sharing is becoming an accepted practice, with many countries and cities created data archives that are freely available.

#### References

- Huston, P., Edge, V. L., & Bernier, E. (2019). Reaping the benefits of Open Data in public health. *Canada Communicable Disease Report*, 45(10), 252-256.
- Keralis, J. (2015). Open to potential: How embracing open data can advance public health practice, governance, and research. Cadence Group. Retrieved from <http://www.cadence-group.com/open-data-important-to-public-health/>
- Manuelyan Atinc, T., & Badiee, S. (2011). Improving public health with open data. Let's Talk Development.

### Open Data in action

**Researchers at the University of Maryland used geotagged tweets to analyze them for indicators of happiness, access to healthy food, and physical activity. This study is part of HashtagHealth, a project funded by the National Institute of Health's Big Data to Knowledge Initiative. HashtagHealth is a resource designed to provide information at the neighborhood level, using open data and social media.**

<https://hashtaghealth.github.io/>

The Allegheny County Health Department, in partnership with the University of Pittsburgh, used housing, environmental, Medicaid, and even restaurant data to understand the risks of cardiovascular disease in local communities. The data gathered has wide-ranging impact in public health, such as economic development, transportation, and human services.

<https://tools.wprdc.org/guides/dash-data-guide/>