### Digital epidemiology. Using the internet for population health. How to listen and what can we discover
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**Issue**

Using the digital traces people all over the world constantly leave on the Internet, Public Health officers can now get insights into population health and their population health needs with unprecedented speed and with a fraction of resources needed by usual epidemiological methods.

### Description of problem

The Internet has grown exponentially in the last 30 years and now is a fundamental building block of our societies even in the less developed parts of the world. People use the internet every day, searching for information, producing information, commenting and sharing the information they think is valuable. These actions leaves signals that can be used to track diseases dynamics, enable real-time event-based surveillance, investigate health behaviors, understand health topics relevant or neglected by the people. Furthermore, increasing computational power, smart mobile devices, techniques like Natural Language Processing and Machine Learning give access to new sources of data and allow to extract meaning from unstructured and complex information. These methodologies fall under the name of Digital Epidemiology; modern Public Health officers need to be aware of how such revolution can improve their everyday work and reveal new horizons.

### Results

We aim to deliver a workshop both conceptual and practical, where the discipline of Digital Epidemiology is introduced, new developments in the field are presented and participants are involved in a hands-on simulation of an epidemiological study using the presented techniques. The goal is to provide Public Health officers new to the field a primer on the opportunities provided by the methodology and the assumption and challenges it brings.