### Computational Epidemiology: Benefits, Risks and the Duty of Citizens to Contribute to Big Data

### **Epidemiology Congress of the Americas**

#### Miami

### June 22, 2016

Kenneth W. Goodman, Ph.D., FACMI Professor of Medicine and Philosophy University of Miami Miller School of Medicine Institute for Bioethics and Health Policy kgoodman@med.miami.edu

UNIVERSITY OF MIAMI MILLER SCHOOL OF MEDICINE INSTITUTE FOR BIOETHICS

# Foundations

### Population health science has always been

- Information-intensive
- Able to presume the consent of its beneficiaries
- Utilitarian

# Is Big Data Special?

Calm down! Nothing about Big Data should foster new concerns as regards risks to people who are the sources of data.

## Rather ...

Ethical concerns should focus on

- Decision support given variable data and data base quality, uncertainty, software of questionable quality, etc.
- Appropriate uses
- Appropriate users

# This is not to say ...

... that concerns about privacy, confidentiality, stigma, etc. are no longer worthy of attention.

It is to say that Big Data itself, all other things being equal, raises no new privacy challenges.

# Privacy

- Is not an absolute right
- Must therefore be balanced against other rights (including a "right to benefit from science"\*)
- Is often mistakenly invoked by individuals

\* http://www.ohchr.org/EN/Issues/CulturalRights/Pages/benefitfromscientificprogress.aspx

# **Information Free-Riders**

- Emphasize privacy over public health
- Risk little if anything
- Benefit from others' contributions of information

# Analogues

- Vaccine refusers
- Organ donation refusers
- Infrastructure support refusers

# **Role of Ethics**

- Illuminate the force, scope and limitations of rights
- Identify and balance conflicting rights, and rights and duties
- Identify and justify duties

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