

# Harnessing “Big Data” to Stop HIV

July 13-14, 2015

5601 Fishers Lane - Rockville, MD

NIAID Division of AIDS (DAIDS), NIMH Division of AIDS Research (DAR),

NIH OD Big Data to Knowledge (BD2K), and

Bill and Melinda Gates Foundation

## Meeting Objectives

- Identify types and sources of data that can be used to optimize HIV treatment and prevention strategies
- Consider ethical challenges to using “big data” sources
- Examine methods for collecting, integrating, and analyzing large databases and how they can be optimized for HIV epidemiology, treatment, and prevention
- Generate recommendations for advancing the use of large data sources to develop increasingly effective HIV treatment and prevention strategies

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12:00 pm            Opening Remarks and Welcome  
*Dr. Carl Dieffenbach – Director, Division of AIDS/NIAID*

12:10                Introduction: Why “Big Data,” Why Now?  
*Dr. Carolyn Williams – Chief, Division of AIDS Epidemiology Branch*

12:15                Overview of Consultation  
*Dr. David Burns - Chief, Division of AIDS Clinical Prevention Research Branch*

### I. Big Data and the Public Interest

**Moderator: Dr. Jennie Larkin - Senior Advisor, NIH Office of the Associate Director for Data Science**

12:30 - 1:00 pm    Big Data, Big Opportunities...and Challenges  
*Dr. Daniel Masys*

1:00 – 1:20         Synthesizing Complex Data For Research and Public Health  
*Dr. Neil Abernethy*

1:20 – 1:40         Commercial Use of Big Data in the Public Interest  
*Mr. Bruce Cerretani*

1:40 – 2:00         Twitter and Social Media in Public Health Research  
*Dr. Ming-Hsiang Tsou*

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- 2:00 – 2:20 pm    Causal Inferences from Big Data  
*Dr. Miguel Hernan*
- 2:20 – 2:40        EOS: Large-Scale, Data-Intensive Warning for Forced Migration  
*Dr. Jeff Collmann*
- 2:40 – 3:00        **Questions and Discussion**
- 3:00 – 3:20        **Break**

**II. Ethical Challenges to Using Big Data**

***Moderator: Dr. Liza Dawson – Research Ethics Team Leader,***  
***Division of AIDS***

- 3:20 – 3:40 pm    Current Research Oversight Systems and Big Data Research  
*Dr. Jeffrey Kahn*
- 3:40 – 4:00        Use of Big Data for Public Health Objectives: Contextual  
Approach to Privacy  
*Dr. Helen Nissenbaum*
- 4:00 – 4:20        Risks of Public Health Research Using More Easily Accessible  
Information  
*Dr. Solon Barocas*
- 4:20 – 5:00        **Panel Discussion: Addressing Ethical Challenges**  
*Drs. Nissenbaum, Barocas, Kahn, Collmann, James Grimmelman*
- 5:00 – 5:20        **Wrap-Up of Discussions from Day 1**  
*Dr. David Burns*



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12:00 – 12:30 pm **Open Discussion**  
12:30 – 1:30 **Lunch (on your own)**

**IV. Harnessing “Big Data” to Stop HIV: Research Priorities**  
**Breakout Sessions: 1:30 - 2:45 pm**

|                                                               |                                                  |
|---------------------------------------------------------------|--------------------------------------------------|
| Men Who Have Sex with Men                                     | <i>Drs. Patrick Sullivan and Christian Grov</i>  |
| Women and Girls                                               | <i>Drs. Ada Adimora and Audrey Pettifor</i>      |
| Treatment & Prevention<br>Continuum                           | <i>Drs. Wafaa El-Sadr &amp; Susan Buchbinder</i> |
| Early HIV Infection & Persons<br>Unaware of Their HIV+ Status | <i>Drs. Myron Cohen and Susan Little</i>         |
| Ethical, Legal and Policy Issues                              | <i>Drs. Jeffrey Kahn and Helen Nissenbaum</i>    |
| 2:45 – 3:00                                                   | <b>Break</b>                                     |

**V. Reports from Breakout Sessions**

|                |                                                                                                       |
|----------------|-------------------------------------------------------------------------------------------------------|
| 3:00 – 3:15 pm | Men Who Have Sex With Men (MSM)                                                                       |
| 3:15 – 3:30    | Women and Girls                                                                                       |
| 3:30 – 3:45    | HIV Treatment & Prevention Continuum                                                                  |
| 3:45 – 4:00    | Early Infection & Persons Unaware of Their HIV+ Status                                                |
| 4:00 – 4:15    | Ethical, Legal and Policy Issues                                                                      |
| 4:15 – 5:00    | Panel: Research Priorities - <i>Moderators and Rapporteurs</i>                                        |
| 5:00           | <b>Wrap-Up and Acknowledgements</b><br><i>Drs. David Burns and Carolyn Williams, Division of AIDS</i> |