

1. Record Nr.	UNINA9910792512103321
Titolo	Big data and analysis for infectious disease research, operations, and policy : proceedings of a workshop / / National Academies of Sciences, Engineering, and Medicine (U.S.)
Pubbl/distr/stampa	Washington, District of Columbia : , : The National Academies Press, , 2016 ©2016
ISBN	0-309-45012-8 0-309-45014-4
Descrizione fisica	1 online resource (82 pages)
Disciplina	616.9
Soggetti	Communicable diseases - Research Big data - Security measures Conference papers and proceedings.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Big data and global health -- Opportunities and challenges for big data and analytics -- Case studies in big data and analysis -- Closing remarks and general discussion -- References -- Appendix A: Workshop agenda -- Appendix B: Biographical sketches of workshop speakers -- Appendix C: Statement of task.
Sommario/riassunto	"With the amount of data in the world exploding, big data could generate significant value in the field of infectious disease. The increased use of social media provides an opportunity to improve public health surveillance systems and to develop predictive models. Advances in machine learning and crowdsourcing may also offer the possibility to gather information about disease dynamics, such as contact patterns and the impact of the social environment. New, rapid, point-of-care diagnostics may make it possible to capture not only diagnostic information but also other potentially epidemiologically relevant information in real time. With a wide range of data available for analysis, decision-making and policy-making processes could be improved. While there are many opportunities for big data to be used

for infectious disease research, operations, and policy, many challenges remain before it is possible to capture the full potential of big data. In order to explore some of the opportunities and issues associated with the scientific, policy, and operational aspects of big data in relation to microbial threats and public health, the National Academies of Sciences, Engineering, and Medicine convened a workshop in May 2016. Participants discussed a range of topics including preventing, detecting, and responding to infectious disease threats using big data and related analytics; varieties of data (including demographic, geospatial, behavioral, syndromic, and laboratory) and their broader applications; means to improve their collection, processing, utility, and validation; and approaches that can be learned from other sectors to inform big data strategies for infectious disease research, operations, and policy. This publication summarizes the presentations and discussions from the workshop"--Publisher's description.
