Advancing Surveillance of Chronic and Non-Communicable Disease—A Path Forward

Elissa R. Weitzman¹, ³ and Nadia Waheed², ⁴

¹Harvard Medical School, Boston, MA, USA; ²Tufts University School of Medicine, Boston, MA, USA; ³Boston Children’s Hospital, Boston, MA, USA; ⁴New England Eye Center, Boston, MA, USA

Objective
To characterize current and future approaches to surveillance of chronic and non-communicable diseases and establish the agenda for both methodological and condition-specific progress.

Introduction
Major global stakeholder groups including the United Nations, World Health Organization and Institute of Medicine seek to raise awareness of the threat to global health and security of chronic and non-communicable diseases. These conditions comprise 50-85% of the global annual morbidity burden and constitute a major drain on national economies. To move from awareness of this problem to action and amelioration of issues, we need effective means for monitoring and intervening with populations using approaches that span primary, secondary and tertiary prevention.

Methods
This session will begin with a discussion of key concepts and terms and their implications for defining target problems, populations and surveillance strategies. We will also begin by reviewing the epidemiologic and economic arguments for advancing surveillance in this area. The discussion will center on a critical assessment of issues related to surveillance of chronic and non-communicable diseases: how do approaches differ from established and evolving approaches to surveillance of infectious disease? Are there opportunities for synergy with current surveillance efforts and assets? Where are new methods needed? How might surveillance approaches be advanced in different regions (e.g., developing and industrialized settings)? Might new approaches predicated on “citizen science” and engaged patient and public health cohorts provide platforms for advancing surveillance of chronic and non-communicable diseases and what is required to ensure their success?

Results
Points of discussion:
1) Participants are encouraged to come prepared to share their experiences engaging patient and public health cohorts in this area, including sharing experiences engaging cohorts using online social networks, participatory research and surveys.

2) Brainstorm ideas for development of a workshop in non-communicable disease surveillance.
Sample questions:
1) What are the issues related to surveillance in the context of resource rich and poor contexts?
2) What are the special needs for establishing cost-effective and sustainable methods for longitudinal tracking?
3) How can technological advances and engaged patient and public health cohorts be used in the advancement of surveillance? What are methods to maximize engagement in both the developed and developing world?

Conclusions
Non-communicable diseases are a major and growing morbidity and mortality burden globally. This round table discussion will focus on the importance of non-communicable disease surveillance, attempt to elicit participant’s experiences in the surveillance of these conditions, and outline special needs for establishing cost-effective and sustainable methods for longitudinal tracking of non-communicable diseases.

Keywords
surveillance; Non communicable diseases; chronic diseases

Acknowledgments
Dr Weitzman’s work is supported by PO1HK000088-01 from the Centers for Disease Control and Prevention (CDC), National Library of Medicine grant 5R01LM007677 and 1U54RR025224-01 from NCRR/NIH.

*Nadia Waheed
E-mail: nwaheed@tuftsmedicalcenter.org