The 2005 revision to the World Health Organization’s (WHO) International Health Regulations (IHR) created a new framework for disease reporting that would enable each country to report to public health authorities on a national level. In 2006, the U.S. and international partners convened a working group to adapt the methods from the original Chan et al. study for use on a national level. This framework has been implemented by the Field Epidemiology Training Programs (FETPs) in Kenya, Pakistan, Taiwan and Zimbabwe. Results of the studies, along with best practices and lessons learned, will be shared with other FETPs at the Field Epidemiology and Laboratory Training Program (FETP) Global Core Course in September 2014 in order to refine the methodology. A second round of pilot studies will soon be launched through the FETPs in Haiti, India, and Indonesia.

Methods
SOTF has specifically supported studies to establish a 10-year baseline for measuring timeliness of disease outbreak detection and associated metrics in each pilot country. The baseline data include all outbreaks of diseases meeting the country’s specifications, excluding the following:
- isolated cases of disease
- disease occurring only in animals
- foodborne outbreaks
- non-natural cases (e.g. lab accident, bioterror)
- and other non-infectious health events.

The time interval from outbreak start to outbreak milestones is measured for each outbreak, and median time calculated. A univariate Cox proportional hazards regression analysis is then applied to analyze the changes in time to each outbreak milestone over time. Significant changes to surveillance practices during the time period examined should be noted and data stratified by these time periods for additional examination to assess impact of timeliness of outbreak detection.

Impact
The Skoll Global Threats Fund supports adoption of these metrics in order to inform and strengthen disease surveillance at the international, national and sub-national levels. Although countries are not meant to be directly comparable due to differences in disease burden, surveillance infrastructure, and reporting practices, establishment of a 10-year baseline will enable ongoing measurement of countries’ progress toward track progress over time and set objectives based on their specific context.

Acknowledgements
The Skoll Global Threats Fund would like to acknowledge the authors of Chan et al. (2010) for their work in developing this approach. We would also like to thank Larry Madoff (ProMED-mail), Sumiko Mekaru (HealthMap), Sheryl Gordon (HealthMap) and Ana Vinze (TEPHINET) and Marx Link (Global Health LLC) for their contributions to developing this methodology used by FETPs at the national level.

About the Skoll Global Threats Fund
The Skoll Global Threats Fund’s mission is to confront global threats imperiling humanity by seeking solutions, strengthening alliances, and spurring actions needed to safeguard the future. We work proactively to find, initiate, or co- create breakthrough ideas and activities that we believe will have large-scale impact, either directly or indirectly, and whether on cross-cutting issues or individual threats.