TEPHINET
325 Swanton Way
Decatur, GA 30030
Tel (404) 592-1410
http://www.tephinet.org

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Training programs in **E**pidemiology and **P**ublic **H**ealth **I**nterventions **NET**work

RE: Call for Applications to Measure the "National Baseline" – Time to Outbreak Detection

Dear Program Directors,

We are pleased to announce the opportunity to submit mini grant proposals for a study to measure the time required for detection and control of infectious disease outbreaks. Up to five mini grants will be awarded, with a maximum of one submission allowed per country. We encourage resident advisors and program coordinators to work with residents and graduates to develop a proposal that will feature contributions from multiple participants.

Purpose & Background

Modern air travel creates the possibility for infectious diseases to spread from one side of the world to another in approximately twenty-four hours. In order to combat the rapid spread of newly emerging pathogens as well as endemic disease, the public health community must leverage digital communications technology to find outbreaks faster and reduce their potential for pandemic spread. Many believe that improvements in disease surveillance and communications, particularly the development of event-based surveillance systems such as ProMED-mail, HealthMap, and the Global Public Health Intelligence Network (GPHIN), can help to detect early signs of outbreaks and reduce the time to detection of outbreaks.

In 2010 Chan *et al.*, including collaborators from HealthMap of Boston's Children Hospital and the Program for Monitoring Emerging Diseases (ProMED-mail), with funding from Google.org and the National Institutes of Health, published the first study aimed at measuring the time elapsed between the start of an infectious disease outbreak and its detection by the public and relevant health authorities. Chan *et al*. used the World Health Organization's (WHO) *Disease Outbreak News* (DON) to assemble a database of outbreaks that occurred worldwide between 1996 and 2009, supplementing that information with data from the ProMED-mail, HealthMap, and Global Public Health Intelligence Network (GPHIN) surveillance systems. The study found that the median time between outbreak start and outbreak discovery decreased from 29.5 days in 1996 to 13.5 days in 2009, while the median time between outbreak discovery and public communication about the outbreak decreased from 40 days to 19 days over the same time period. While trends and results varied across WHO regions and the study had several limitations, it was an important step in measuring the world's ability to detect outbreaks faster.

With a global perspective, Chan et al. only focused on "diseases of international importance" and thus relied on a dataset that included few or no data points for many countries around the world. In order to develop a more detailed assessment of how the public health community is progressing towards faster outbreak detection, we propose that each member country in the TEPHINET community conduct a similar retrospective study to assess their progress in detecting

outbreaks early. Field Epidemiology Training Programs (FETP) are well-positioned to reproduce similar study methods and apply them to their own country. Several advantages of this approach include:

- FETPs have access to local media sources and can examine reports in local languages - this can provide additional information and context to outbreak timelines.
- FETPs have access to government data used to establish outbreak timelines.
- Increased access to local, regional and national data may result in a larger number of outbreaks for analysis in each country.
- FETP trainees will gain further experience using event-based surveillance tools such as ProMED-mail, HealthMap, and GPHIN to establish and confirm the time to detect and report an outbreak.
- This study will allow countries to establish methods for accurately determining baseline measurements from which they can track improvement overtime and potentially identify areas to target resources to reduce the time to detect.
- Measuring the local, regional or national baselines will contribute towards country progress in implementing the 2005 International Health Regulations (IHR), which took effect in 2007.

Program Support:

Principal investigators **must** include a letter of support from the FETP Program Director or Resident Advisor demonstrating their support for the project and willingness to provide assistance as needed. Trainees submitting proposals are encouraged to include the FETP Resident Advisor as a co-Principal Investigator. We encourage proposals to include multiple FETP trainees as the workload may exceed what is reasonable for one person.

Data Availability:

There may be opportunity for results to be published in a peer-reviewed journal. Applicants should strive to make aggregate data used in the study available for review by the TEPHINET community.

Online Training:

All FETP contributors to the study will be asked to complete two brief online training modules focused on digital and informal disease surveillance systems. Further information will be made available once funds are awarded.

Award Information:

Up to five awards will be given (a country program will receive no more than one award). Applicants will be required to submit a proposed budget, detailing expected expenditures related to the project. It is anticipated that total budgets will fall in the range of $3000-6000 USD. An additional stipend for travel will be awarded for one representative per mini grant award team to attend the TEPHINET Global Meeting in Spring 2015, contingent upon receipt and review of preliminary report in November 2014 (in line with the timeline below). This representative will be expected to present preliminary results of the study at this time. Proposals should designate a principal investigator and list all team members. Funds may be used at the discretion of the FETP in support of the study.

Please limit the Letter of Intent to no more than 2 pages, single-spaced. Letters of Intent should be submitted online (at: http://www.tephinet.org/content/innovations-surveillnace-national-baseline-mini-grant-opportunity-letters-intent) by **Friday, June 27, 2014**.

Programs selected to submit a full proposal will be notified by **Wednesday July 2, 2014**.

Final proposals from invited authors must be submitted online (at: http://www.tephinet.org/content/innovations-surveillance-national-baseline-mini-grant-application-final-proposals) by **Wednesday, July 23, 2014.** Final proposals should be no more than 10 pages, single-spaced, plus appendices. **Award recipients will be announced by Monday, August 6th, 2014.** Projects will last approximately 12 months and all work should be completed within this timeframe. Awardees will be asked to present preliminary results of their study at the TEPHINET Global Meeting in Spring 2015.

Please note that we will only accept letters of intent and proposals in *English*. If you have any questions about how to submit the application online, please email Anika Vinze, avinze@tephinet.org.

Note: You must create an account at www.tephinet.org and be logged in to access the application forms.

Kind regards,

TEPHINET Team, in collaboration with the Skoll Global Threats Fund (SGTF)

Dr. Dionisio Herrera MD, PhD
Program Director,
TEPHINET secretariat office
Phone:+1 404/592 1447
email: dherrera@tephinet.org

A Program of The Task Force for Global Health, Inc.

TIMELINE FOR INNOVATIONS IN SURVEILLANCE, NATIONAL BASELINE MINI GRANTS

May 30, 2014 – Announcement / Request for proposals is posted on TEPHINET.org and sent to FETP Program Directors

June 27, 2014 - Letters of intent are due to TEPHINET Project manager (all applications must be submitted via tephinet.org)

July 2, 2014 – Selected authors invited to submit a complete mini grant application

July 23, 2014 – Final proposals are due (all applications must be submitted via tephinet.org)

August 6, 2014 – Letters of acceptance are sent to those selected

August 8, 2014 – Awardees receive contracts for review and signature

August 11, 2014 – Projects begin

November 7, 2014 – Interim progress report due to TEPHINET Project Manager

Spring 2015 - Mini grant awardees present initial findings at TEPHINET Global Meeting (travel funding contingent on receipt and review of interim progress report above)

August 10 – Final report due to TEPHINET Project Manager