Early identification of an outbreak of a novel infectious disease is critical, but how do we do that?

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*Opinions are my own
Program for Monitoring Emerging Diseases (ProMED)

- Established in 1994
- Originally internet listserv
- 15,000+ subscribers in 175+ countries
- 50+ MD and PhD-level Moderators around the globe
- Moderators add comments to every ProMED post
- Early warning system
Program for Monitoring Emerging Diseases (ProMED): Present

- **10** ProMED networks
- **Over 6,500** posts written by ProMED Moderators across all 10 networks in 2021
- Send out over **3.5 million** emails per month to subscribers
ProMED Regional Networks

ProMED-PORT – 1997
Portuguese-language posts focusing on Latin America

ProMED-ESP – 2001
Spanish-language posts focusing on Latin America

ProMED-RUS – 2006
Russian-language posts focusing on the Newly Independent States of the former Soviet Union

ProMED-MBDS – 2007
English-language posts focusing on the Mekong basin region of Southeast Asia

ProMED-FRA – 2008
French-language posts focusing on Francophone Africa

ProMED-EAFR – 2009
English-language posts focusing on Anglophone Africa

ProMED-SoAs – 2014
English-language posts focusing on South Asia

ProMED-MENA – 2014
English-language posts focusing on the Middle East/North Africa with English/Arabic subject line

ProMED-AMR – 2020
English-language posts focusing on world-wide Antimicrobial Resistance events of significance
Harnesses Formal and Informal Information Sources

An information source outside of the routine surveillance network. Used in Event-Based Surveillance (EBS) and consists of non-traditional information sources.

Can include:

- Informal/unofficial reports
- Rumors
- Off-the-record accounts
- Information from non-governmental entities
- Unconfirmed reports
- Unstructured data
ProMED’s Impact

- Provided the first report on numerous outbreaks
- Consistently beats platforms relying on automation alone

www.promedmail.org

- 1994: ProMED Founded
- 1996: ProMED-mail website founded after Kikwit Ebola outbreak
- 2003: 1st report of severe pneumonia in China, HK (SARS)
- 2005: 1st report of fever, arthralgia, and rash in South Indian Ocean (Chikungunya)
- 2012: 1st report of pneumonia - coronavirus in Saudi Arabia (MERS)
- 2014: Early warning of undiagnosed fever in Guinea (Ebola)
- 2015: Early warning of Zika spread to the Americas
- 2019: 1st report of cluster of undiagnosed pneumonia in Wuhan, China (COVID-19)
Complementary Systems of Surveillance

• Must be adaptable and attentive to new sources of information to detect signals

• Innovative surveillance does not replace traditional surveillance - they are complementary
Program for Monitoring Emerging Diseases (ProMED): Future

- Integrate non-traditional, un-/poorly tapped data streams for modeling and enhanced reporting
  - Lab results/reports
  - Wastewater surveillance
  - Genome sequencing
  - AMR data
  - Climate data
  - Population data
  - Animal migration patterns
  - Proprietary data
  - Trend and spread predictive modeling
Thank You!

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