

Working within the EIOS system - Italy from international collaboration to national opportunities

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The Rationale (1)

Reinforcing event-detection to complement existing Early Warning Systems within the country, in the framework of IHR (article 9) and in line with existing WHO guidance



https://apps.who.int/iris/bitstream/handle/10665/112667/WHO_HSE_GCR;jsessionid=60306BC31DE25D695C7C0A5A59369C9D?sequence=1



The Rationale (2)

While indicator-based early warning systems for infectious diseases were well established in Italy, no system was in place for event-based surveillance.



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Activities

- At **international level**: contributing an (early) evaluator and EBS analyst to the Global Health Security Initiative (GHSAG) Early Alerting and Reporting project (EAR) → **transition to EIOS**
- At **national level**: development of an Italian network of Epidemic Intelligence with a focus on event based surveillance (EBS)

In both cases: application of a decentralized collaborative model for EBS surveillance which is sustainable also when a dedicated EBS central unit is not present.

Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science
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INTERFACING A BIOSURVEILLANCE PORTAL AND AN INTERNATIONAL NETWORK OF INSTITUTIONAL ANALYSTS TO DETECT BIOLOGICAL THREATS

Flavia Riccardo, Mika Shigematsu, Catherine Chow, C. Jason McKnight, Jens Linge, Brian Doherty, Maria Grazia Dente, Silvia Declich, Mike Barker, Philippe Barboza, Laetitia Vaillant, Alastair Donachie, Abba Mawudeku, Michael Blench,[†] and Ray Arthur

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248243/pdf/bsp.2014.0031.pdf>

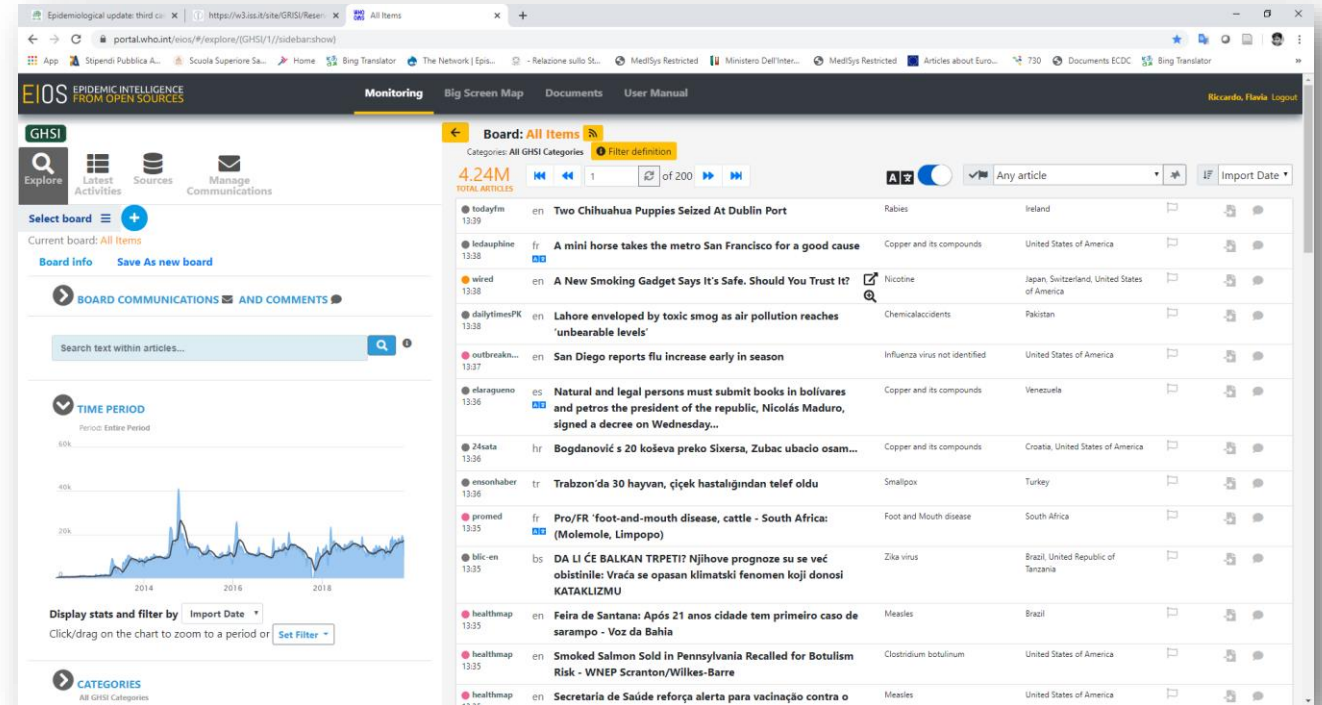


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Transition to EIOS

- Access acquired as part of the GHSAG EAR analysts
- No major transition issues from the former platform (main difference was transitioning from IURs → Boards)
 - Key functionalities maintained
 - Benefited from great transition process (WHO, US-CDC, JRC...)
- Daily automatic digests and versatility of push notifications
- Process of aligning collaborative working practices
- So far, use limited to GHSAG EAR related activities



Development of EBS surveillance at national level: first steps



Early Epidemic Intelligence weekly dispatches in Italy, 2010

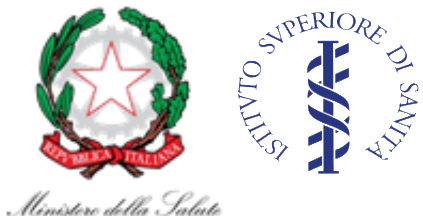
- The Italian MoH started funding pilot projects exploring the feasibility of event based surveillance within Italy with a focus on biological threats since 2007.
- Following the successful implementation of different EBS models and pilot implementations, coordinated by the Italian Institute of Health (ISS), the Italian EBS system was fully operational for 8 months during the EXPO 2015 mass gathering event in Milan.

Health Security
Volume 14, Number 3, 2016 Mary Ann Liebert, Inc.
DOI: 10.1089/hs.2015.0075

EVENT-BASED SURVEILLANCE DURING EXPO MILAN 2015:
RATIONALE, TOOLS, PROCEDURES, AND INITIAL RESULTS

Flavia Riccardo, Martina Del Manso, Maria Grazia Caporali, Christian Napoli, Jens P. Linge, Eleonora Mantica, Marco Verile, Alessandra Piatti, Maria Grazia Pompa, Loredana Vellucci, Virgilio Costanzo, Anan Judina Bastiampillai, Eugenia Gabrielli, Maria Gramegna, Silvia Declich; and the Regional Focal Points for EBS Surveillance Work Group

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4931307/>



Towards a sustainable EBS surveillance in Italy

- Since 2017 the Italian MoH has regularly funded the development and consolidation of an Italian Network of Epidemic Intelligence with a focus on EBS surveillance.
- Activities have included the production of an **EBS guidance in Italian**, identification and training of EBS analysts from public administrations within Italy, organization of technical meetings and pilot activations of EBS surveillance at national level.
- Long-standing collaboration with the European Joint Research Centre (Ispra, VA) has allowed the customization and privileged use of the EC biosurveillance platform (NewDesk)



Feasibility

- Network of 20 analysts in 8 teams
- Pilot activations were feasible (no breakdown of the rotation system)
- Analysts grouped in teams of 2-4 analysts for weekly rotations (roughly one on-call week a month) with internal coordination for the classification of daily events (roll calls)
- Most analysts require between 1-2hrs a day to monitor information while on-call (mainly compatible with routine duties)
- Outputs: daily bulletins with highlighted signals and events

Corso avanzato di sorveglianza
basata su eventi per analisti

05/09/2019

PILOTA DI UN SISTEMA DI SORVEGLIANZA BASATO SU EVENTI

CONFIDENZIALE - CONTIENE INFORMAZIONI NON VALIDATE

Rapporto prodotto a fini didattici nell'ambito di un corso di formazione

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Timeline of activities towards the consolidation of an Italian Epidemic Intelligence Network



2017: production of the first document in Italian on EBS surveillance experiences in Italy

2017: training event for potential EBS output recipients in Italy and introduction workshop for EBS analysts

2018: Training of EBS Analysts

2018: First pilot activation of trained analysts using a collaborative model and assessment of feasibility and sustainability

2019: analyst de-briefing on pilot results and definition of SOPs
2019: Second pilot activation (ongoing)

Consolidation of the network for long term activation

Investment on professional development and training of EBS analysis
Next National Meeting 28-30 January 2020



Decentralized collaborative network of trained EBS analysts using a common biosurveillance interface and a standardized event risk assessment tool (Funded by the Italian Ministry of Health)



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Image source:
<https://www.cdc.gov/surveillance/index.html>



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