DEAR READER,

Another year is coming to a close and these last months have been a whirlwind of activity for EIOS teams around the globe! Colleagues from the Global EIOS Support Team have onboarded more new EIOS communities than ever before, delivering a mix of remote, in-person and hybrid trainings across regions and continents. Keeping pace with this expansion, supporting the needs of the diverse EIOS communities while continuing to consolidate, innovate and further develop the initiative and system is no easy feat. Nonetheless, part of the EIOS Core Team is busy helping set up the new WHO Hub for Pandemic and Epidemic Intelligence in Berlin, while other team members are clocking endless hours preparing the 2021 Global Technical Meeting (GTM) in early December. Yet, with a certain amount of grit, patience and vision it is an exhilarating journey with steep learning curves, and this edition of the newsletter provides you with a glance into some of this ongoing work of the EIOS initiative.

The Spotlight will focus on the new WHO Hub, taking you from the inauguration ceremony to its overall vision and new leadership. Training updates highlight the ambitious evolving project on building and strengthening PHI competencies on a global level and provide a glimpse into some of the recent EIOS system workshops in Cameroon, South Africa, Guatemala and Haiti. This edition’s Community Close Up features the Vaccine Safety Net community and is a great example of how EIOS can be used to collaborative by global expert networks.

With sincere greetings,
The EIOS Core Team
Our July newsletter highlighted the announcement of a new WHO Hub for Pandemic and Epidemic Intelligence. The Hub expands on the EIOS model and activities and is an exciting opportunity to further strengthen pandemic and epidemic intelligence around the globe. The past few months have been incredibly busy and exciting for the WHO Hub.

The WHO Hub was inaugurated on 1 September by Dr. Tedros and German Chancellor Dr. Angela Merkel. During the opening ceremony, scientific and political thought leaders discussed how the WHO can help the world to better prepare for future pandemics and epidemics.

On 01 November 2021, Dr. Chikwe Ihekweazu joins WHO as an Assistant Director-General within the Health Emergencies Programme and with responsibility for the Hub. Chikwe is an infectious disease epidemiologist and consultant in public health medicine whose scientific research has focused largely on intervention epidemiology. Over the past 20 years, Chikwe has held public health and leadership positions in several national public health institutes, including the Nigeria Centre for Disease Control, the South African National Institute for Communicable Diseases, the United Kingdom’s Health Protection Agency and Germany’s Robert Koch Institute.

In the next few months, the WHO Hub will focus on building the required structures to become operational as we also work on transitioning the EIOS initiative under Chikwe and strategically positioning it within the Hub. In the new year, as the Hub begins to get staffed, various pieces will move to its new headquarters at Moritzplatz, Kreuzberg, in the heart of Berlin. Operations will begin to focus on key activities outlined in the strategic overview as collaborations are established and expanded across sectors, disciplines and jurisdictions. We look forward to the contributions and enhancements that the Hub will bring to our global collective efforts!

To get in touch, please email pandemichub@who.int

Jenny, M.A., Robert Koch Institute
AbdelMalik, P., WHO
News from the EIOS Core Team

The EIOS initiative keeps growing! The third quarter of 2021 has been one of the busiest yet for the ECT and the Global EIOS Support Team. Since our last newsletter, a total of nine new communities have been onboarded and two more are in pole position with trainings scheduled in early November. We are thrilled to welcome the Medical Products from Human Origins Safety Network (or “MPHO Safety”) to the initiative, as well as a wide array of new Member States from four of the six WHO regions. Cameroon, Guatemala, Haiti, Iraq, Liberia, Senegal, South Africa and the United Kingdom all joined EIOS and first face-to-face trainings have restarted in the African region (read more on page 3). The subnational expansion in Brazil continues and with it the exponential growth trend the initiative has experienced over the past year. Between January and October 2021, a whopping 1,173 new EIOS user accounts have been created, more than four times as many as in the same period last year (271).

Team Updates

Fortunately, most of the vacant positions on the ECT have been filled over the past months. In September, Raquel Medialdea Carrera joined the ECT as Training Coordinator after this crucial position had been vacant for almost a year. We were happy to welcome back Alastair Donachie as Categories Consultant and Mostafa Mahran joined us as Sources Consultant in October. To meet some of the most urgent needs that remained uncovered, we have been able to commission additional support from other WHO teams. Since mid-October, Kateryna Kostenko from the WHO IT Management Team is supporting the ECT as Business Analyst to help set up and manage some of the technology projects and priorities and Heidi Ghanem from the HIM Team at the WHO Regional Office for the Eastern Mediterranean has come on board to help organize the upcoming EIOS 2021 Global Technical Meeting (GTM). To better support new EIOS communities, Leila Bell, former EIOS focal point at the WHO Regional Office for the Western Pacific, has been hired as a part-time consultant to develop a Community Engagement Strategy and onboarding package by the end of the year.

Yet, the initiative continues to outgrow the small team and more hands-on deck are urgently needed to steer the EIOS vessel on its expansion journey. This is particularly true as some of the key members of the ECT have been co-opted to the Core Team charged with setting up the new WHO Hub for Pandemic and Epidemic Intelligence in Berlin, including our team lead Philip AbdelMalik, as well as Dusan Milovanovic and Marc Riner. Sharing a similar vision with the new WHO Hub for Pandemic and Epidemic Intelligence and following a restructuring of the WHO Emergencies Programme, the lead of the EIOS initiative will move under the new WHO Assistant Director-General Chikwe Ihekweazu, who will be heading the new entity (refer to the Spotlight article for more details). We are looking forward to this new chapter and the opportunity it opens for the EIOS initiative. A warm welcome to Chikwe, who will be starting his new position as of 01 November 2021!

Coordination Group

• **FAO**: Fairouz Larfaoui and Madhur Dhingra replace Julio Pinto
• **GOARN**: Pat Drury represents GOARN at interim.

Building and Strengthening PHI Competencies

The COVID-19 pandemic has represented an unprecedented challenge for society and public health illustrating the enormous impact of global health emergencies. It has also highlighted the critical function of public health intelligence personnel who can identify, assess and communicate important new information to support prompt response. Developing and sustaining Public Health Intelligence (PHI) capacity requires people with the professional competencies to transform an abundance of raw data, from a variety of sources, into insights, information and knowledge to drive effective and confident public health decisions and actions.

Experiences and lessons learned through engagement with the EIOS Community indicate that further strengthening of the PHI workforce competencies and capacities are required before, during, and after a public health emergency. Building on existing competency frameworks and others being developed by WHO and other partners, the team has initiated the development and implementation of a comprehensive and adaptable curriculum, mapped to defined competencies, in order to enable and assist Member States to better detect, identify, and respond to public health threats. With the objective of strengthening PHI capacity building, developing internationally accepted competency-based curricula for Public Health Intelligence officers and other public health professionals is essential to ensure a global pool of well-trained public health intelligence professionals for both routine work and emergency responses. This PHI Competency framework is being developed with an all-hazards, One Health approach.
AFRO: Back to face-to-face trainings

As countries begin to readjust working arrangements during the pandemic, some have begun to tailor social gathering regulations as they pertain to the national epidemiological situation of COVID-19. Fortunately, this has recently allowed for face-to-face engagements including EIOS training sessions. Recently, Cameroon and South Africa participated in trainings with in-person facilitation by the WHO Regional Office for Africa (AFRO) team to more than 40 individuals.

In Douala, Cameroon, staff from the Ministère de la Santé Publique (MINSANTE), Ministère de l’Environnement, de la Protection de la Nature et du Développement (MINEPDED), Ministère de l’Elevage, des Pêches et des Industries Animales (MINEPIA), Ministère des Forêts et de la Faune (MINFOR), WHO Cameroon country office, and other agencies participated in a training from 5-7 October 2021. In Johannesburg, South Africa, staff from the National Department of Health (NDOH), the National Institute of Communicable Diseases (NICD), and the WHO South Africa country office participated in a three-day training on EIOS from 13-15 October 2021.

During the face-to-face training, participants were able to benefit from a more didactic methodology of learning EIOS as compared to the remote and hybrid models that were adapted to accommodate trainings earlier in the pandemic. While some of the interactive methods such as polling applications, knowledge competitions, demos and videos remained part of the learning process, more in-session self-practice, group discussion, and facilitator engagement were possible during face-to-face training facilitation. While it is difficult to assess which facilitation methodology produces better outcomes, face-to-face time does add to the strengthening of professional relationships which can lead to better integration of the EIOS platform. It is also easier to close some common gaps of remote trainings such as planning follow-ups meetings, creation of boards, and solidifying next steps for operationalization.

Lee, T., Mize, V. and Poto, V., WHO AFRO

Haiti and Guatemala join the EIOS initiative

The expansion of EIOS continues in the Region of the Americas. Over the past quarter, the initiative welcomed the Haiti Ministry of Public Health and Population (MSPP) and the Guatemala Ministry of Public Health and Social Assistance as the newest members of the EIOS Americas community. They follow Argentina and Brazil (2019) and St. Lucia and Dominica (2020) as the fifth and sixth Haiti Member States to implement EIOS in the region.

In Haiti, a four-session virtual workshop was organized to address event-based surveillance and the use of the EIOS system in strengthening this effort. As part of the training, health professionals from the Haiti MSPP and the Haiti PAHO/WHO Country Office set up boards to monitor specific events including vaccine-preventable, zoonotic, and vector-borne diseases, and for border surveillance. In the context of Haiti, sharing an important border with neighboring Dominican Republic, cross-border surveillance is a major focus, as there is significant movement of people across borders. During the sessions, additional local sources were identified and added to the system.

In September, the EIOS initiative was happy to welcome Guatemala as its first Central American community! Colleagues from the Guatemala Ministry of Public Health and Social Assistance participated in a remote workshop with four sessions running over four weeks and have already provided great input for further system improvements.

Idefonso, S. WHO PAHO

“This training on epidemiological intelligence using the EIOS platform was very rewarding. It allowed us to consolidate our knowledge in an area that we are all passionate about (epidemiological surveillance) and that contributes to early warning and response for public health events. During the training sessions, all participants were captivated and gave their best. The training approach must be applauded for the tools used for questionnaires with instant view of the results, other tools such as videos, presentations, practice exercises, survey forms and online signatures were at the same time resourceful, fun, and captivating. We are hoping to use them for our future field trainings. As for my part, I would like to thank you for your availability and patience throughout the training. We sincerely hope to be able to apply the new skills acquired and finally be able to use the EIOS platform in depth for managing public health events in Cameroon.”

Dr Chanceline BILOUNGA NDONGO, Public and Occupational Health Physician DLMEP/Ministry of Public Health-Cameroon
WHAT’S NEW
in EIOS?

Quarterly system update

At the end of September, the EIOS system released several new features.

EIOS is now able to include Facebook accounts as sources in the system. Official Facebook accounts like Ministry of Health pages have been identified and added. These sources can be viewed and filtered on the Monitoring and the Sources pages by selecting the type as ‘socialmedia-facebook’. We invite users to inform the ECT of any important Facebook pages they would like to include in the system.

Another update to the system is that all English articles now have an automated abstractive summary. The automatic summary is shown in the preview of the article on the monitoring page, as well as on the article’s details page. This feature will continue to be improved with plans to expand the automated summary feature to articles in other languages.

In addition, an experimental news credibility assessment feature has been enabled. This early release assigns a credibility score to each article based on the style and tone of the article. There are two different credibility classifications: the first is a binary classification that considers the score of two different models on whether the article is considered credible, not credible, or if the two models do not agree on a credibility score. The other credibility classification is multiclass and assigns different classes to the articles based on the style and tone of the article (for example Rumour, Clickbait …). This experimental feature may not yet be useful for daily work in its current state, but it gives users the opportunity to have a first look and to provide feedback to improve this feature going forward.

Webinars

The new features were presented and demoed to the EIOS community in two webinars held on 05 October. If you missed or would like to review the webinar, access the recording under this link.

CATEGORY CORNER

In Q3, we have added a total of 11 new categories to the EIOS system. To further support COVID-19 related monitoring activities, Excess Mortality and Coronavirus has been added as a new category to all communities on the EIOS system.

Unrelated to COVID-19, we have developed new categories to monitor Neonatal and Perinatal Mortality, Water contamination, Deforestation, Road Traffic Accidents, Acute Jaundice Syndrome, Animal Bites and Food Waste. In addition, three categories were added to support the Iraq community with monitoring of mass gatherings and local elections.

We constantly strive to provide requested new categories and cover various languages/dialects as relevant to our users. Over the past quarter, we have added additional translations for 13 categories and refined 10 category definitions to reduce noise and improve functionality. If you think a category you are interested in could use some refinement or you would like to request a new category to better support your monitoring needs, please do not hesitate to contact us!

Social Media Evaluation Project

The research study evaluating the utility of social media content for public health intelligence is in its preparatory phase: keyword filters querying social media content related to COVID-19 variants and vaccinations have been developed and translated into the 6 UN languages, and metrics reports with information related to geographic and demographic coverage have been created on the Sprinklr platform. The next step of the study is to identify a suitable company to support in the text annotation work. The ECT is in conversation with various potential companies to maximize the amount of social media content that can be annotated. The findings from these annotations, as well as the additional metrics, will inform the ECT of the benefits of different social media platforms for public health intelligence activities. Findings will be shared with the wider community, once the study is finalized.
Mark your calendars: 
The 2021 EIOS Global Technical Meeting is around the corner

The annual EIOS Global Technical Meeting (GTM) is back! After a hiatus in 2020, the 2021 GTM will be held as a virtual event from 06-10 December 2021, allowing for even broader participation from around the globe. This year’s meeting will take stock of how the COVID-19 pandemic has impacted public health intelligence (PHI) on a global scale, explore the blind spots it highlighted as well as innovations it triggered. Participants and speakers will span a wide range of professional backgrounds, including but not limited to experts from public health, technology, and academia. A dynamic programme design will offer two mirroring conference tracks to enable live participation across different time zones.

The GTM is the key community event for EIOS and has developed into a crucial milestone for the initiative since it was first convened in 2018. It presents a unique opportunity for cross-sectoral, multidisciplinary collaborators and the global community of practice to come together and discuss current events and challenges, as well as exciting new research and developments in PHI. In 2019, the event convened more than 100 experts from across 40 countries in Seoul, Republic of Korea (link).

Get ready for five days of interesting presentations, inspiring speakers and thought-provoking discussions, and take the opportunity to meet fellow members of the global PHI community. Registration opens on 15 November – keep an eye on your inbox for your invitation!

COMMUNITY CLOSE-UP:

Vaccine Safety Net

Name of Community: Vaccine Safety Net (VSN)
Active on EIOS since: January 2021
Number of members: 14

How many different entities are represented in your community?
There are currently three main entities that are part of VSN community: The VSN secretariat, which represents the 98 member organizations that provide reliable information on vaccine safety in 42 countries, the Pharmacovigilance team (PVG) at WHO and the Early Warning System (EWS) team, responsible for identifying early vaccine safety concerns following COVID-19 vaccination.

What do you like best about EIOS?
When working on specific searches, without doubt, the most useful feature of the EIOS dashboard is the “checkmark” that appears next to the article on the monitoring board when an article has been read. Not only does it improve the efficiency of reviewing articles within a team, but it also creates a great sense of collaboration since all members are working remotely and at different times. The “flagging” of documents is also an invaluable feature to highlight important news to the rest of the team.

What do you use EIOS for?
Each entity is tasked with a different monitoring objective. For the VSN secretariat, we have used the EIOS system to identify emerging vaccine safety concerns during the roll-out of COVID-19 vaccination. The PVG team is looking for the latest research and studies regarding the use of COVID-19 vaccines from reliable sources, including scientific journals and trusted medical and health media reports. The EWS team uses the EIOS system to find reported cases of side effects following COVID-19 vaccination.

COLLABORATION

Updates

Misinformation Workshop

Discerning misinformation is an important aspect of PHI and there is an urgent need to continue finding better ways of managing it. With this goal, collaborators from Amazon Web Services and Imperial College London organized a mini workshop in October, convening participants from the Joint Research Centre (JRC), McGill University, University of Cambridge, University College London, University of Austin and the ECT. The group identified a number of common themes requiring a collaborative effort (below) and agreed to meet on a regular basis to further tackle these:

• Developing a common taxonomy to label different types of misinformation
• Improved sharing of data between the organizations participating in the workshop
• Establishing a common labelled dataset, which can be used to train machine learning (ML) models
• Improving the “explainability” of ML models.