HORIZON 2020

Pandemic Risk and Emergency Management

Results in Brief

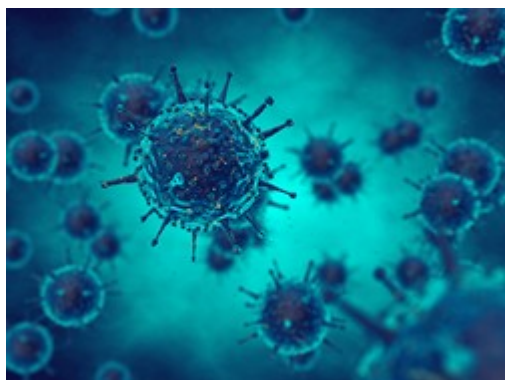# Getting the EU ready for the next pandemic

For 18 months, the PANDEM project has been preparing recommendations to help the EU face a potential pandemic. Armed with its planning tool and other project outcomes, the team has identified research priorities and innovations needed to strengthen preparedness for pandemics.

🔒 SECURITY   ❤️ HEALTH

© nobeastsofierce, Shutterstock

Whilst Europe is no stranger to pandemics, we could easily think that its darkest hours belong in history books — with the likes of the Plague that killed one third of Europe's population in the Middle Ages and the Spanish Flu that killed 40-50 million people in the early 20th Century — or overseas, with the well-known outbreaks of SARS, the Zika virus, Ebola and MERS-CoV.

The PANDEM (Pandemic Risk and Emergency Management) project, however, was initiated precisely because this threat is actually growing, even in Europe. Coordinated by the National University of Ireland, the EUR 1.3 million project notes the current convergence of risk factors driving disease emergence, along with the amplification and dissemination of pathogens with pandemic potential.

'The EU acknowledges that there is a growing health security threat posed by pandemics,' says Prof. Máire Connolly, coordinator of PANDEM. 'In Europe, the increasing numbers of airline passengers with larger travel hubs means that an emerging disease can arrive within hours in a European city. We also have a large population of over 750 million people, and densely populated cities.'

She continues: 'Add to this: the continuing circulation of influenza viruses among birds, pigs and humans; the threat of bioterrorism; and the potential for an accidental release of dangerous pathogens if biosafety measures are not strictly implemented. Then put this in the context of antimicrobial resistance and we have a major threat to human health which could bring the management of infectious diseases back to the pre-antimicrobial era.'

In the face of this spine-chilling threat, PANDEM aimed to review best practices and identify the tools and systems needed to strengthen the EU's preparedness for pandemics and its capacity to face its health, socio-economic and security consequences at national, European and global level. Since the project started in September 2015, it has focused on identifying innovative solutions to build the capacity of EU Member States to collaborate on cross-border risk assessment, response and recovery, within a multi-disciplinary, inter-sectoral network of experts.

'We have created a strong, multidisciplinary approach that has given us new insights,' Prof. Connolly explains. Together, experts in public health, microbiology, security, defence, information technology, communications and law notably created PandemCap, a planning tool for the visualisation and presentation of epidemiological data and simulation of the spread/containment of the pandemic depending on the implementation of control measures available to health professionals. 'The tool will allow planners to evaluate the cost of these measures and prioritise preparedness measures in order to maximise impact,' Prof. Connolly says.

All in all, PANDEM provides the European Commission with a number of recommendations on innovative solutions needed to strengthen pandemic preparedness. These recommendations were presented to a meeting of DG HOME's Community of Users on Safe, Secure and Resilient Societies in Brussels in March 2017.

Amongst the project recommendations is a model framework to ensure all EU Member States have legal underpinning for pandemic response measures such as quarantine and isolation, the equitable distribution of scarce resources such as vaccines and other medical countermeasures. 'Improved situational awareness using community reporting of cases of an emerging disease and social media data will help ensure rapid detection and accurate monitoring of the impact of the next pandemic. This would also support citizen involvement in pandemic response by facilitating dialogue between public health institutions and EU citizens,' Prof. Connolly points out.

Whilst the team acknowledges that the timing and origin of the next pandemic is uncertain, they are confident that improved preparedness can minimise its impact on human lives and health, along with the resulting societal and economic disruptions.

'By applying innovations from the security, defence and crisis management sectors to improve the tools and systems used by the health sector, we can help to ensure that Europe and the wider world are better prepared to rapidly detect and mitigate the impact of the next pandemic,' Prof. Connolly concludes.

Keywords

PANDEM, pandemic, Europe, countermeasures, planning, risk factors, recommendations, threat, security

Discover other articles in the same domain of application

Delaying or refusing COVID-19 vaccines: The effects of misinformation

Rapid 3D images of coronavirus-infected cell structures

Is Europe ready for another pandemic?

Characterising the factors that drive avian influenza dynamics

🌱 ❤️

Project Information

PANDEM

Grant agreement ID: 652868

Project website ↗

DOI
10.3030/652868 ↗

Project closed

EC signature date
12 June 2015

Start date
1 September 2015

End date
31 March 2017

Funded under
Secure societies - Protecting freedom and security of Europe and its citizens

Total cost
€ 1 384 807,50

EU contribution
€ 1 277 307,50

Coordinated by
UNIVERSITY OF GALWAY
🇮🇪 Ireland

This project is featured in...

RESEARCH*EU MAGAZINE

European wine producers step their game up

Related articles

Is Europe ready for another pandemic?

22 June 2022

Last update: 27 June 2017

Permalink: https://cordis.europa.eu/article/id/200092-getting-the-eu-ready-for-the-next-pandemic

European Union, 2025