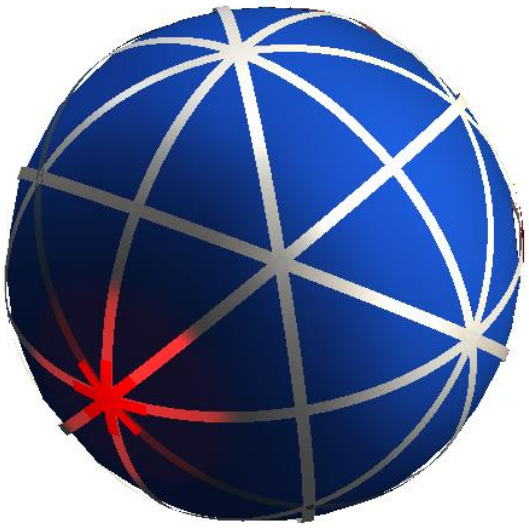
PANDHUB



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D7.4 – Final Symposium

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Summary

This document presents a summary of the PANDHUB Final Symposium. The symposium was held on 6th of March 2018 in Brussels and covered a comprehensive overview of the main topics addressed and activities undergone throughout the project lifetime. The project results were presented following the logic of management of high threat pathogen incidents, which consists of several different phases: threat assessment, preparedness, prevention and protection, detection, response, recovery (including disinfection and decontamination), and conclusions and lessons learnt. The PANDHUB project has produced tools for each phase specifically suited for transport hubs. The applicability of the tools was discussed from different stakeholder perspectives during the Final Symposium.

Contents

1. The PANDHUB Final Symposium Agenda

The PANDHUB Final Symposium covered:

- A clear and comprehensive overview of the main topics addressed and activities undergone throughout the project lifetime;
- Discussion of the findings

In addition, the programme included a presentation of the SHIPSAN project, which is closely related to the topic of the PANDHUB project.

PANDHUB final symposium 6 March 2018

Prevention and Management of High Threat Pathogen Incidents in Transport Hubs

MCE Conference and Business Centre Brussels
Rue de l'Aqueduc, 118 / Waterleidingsstraat 118
1050 Ixelles / Elsene, Belgium

Agenda

9:00 - 9:30	Registration and coffee
9:30 - 9:40	Welcome and opening remarks, *Project coordinator Ilpo Kulmala, VTT*
9:40 - 9:50	European Commission's greetings, *PO Gerburg Larsen, EU*
9:50 - 10:10	Project introduction and overview, *Ilpo Kulmala, VTT*
10:10 - 10:40	Threat assessment, *Pertti Pasanen, University of Eastern Finland & Raija Koivisto, VTT*
10:40 - 11:10	Data collection and contact tracing, *Stéphane Bastier, MEDES*
11:10 - 11:30	*Coffee break /Data collection and contact tracing tool presentation stand*
11:30 - 12:00	Preparedness, *Ian Hall, PHE*
12:00 - 12:30	Prevention and protection, *Joanne Enstone, University of Nottingham*
12:30 - 13:30	*Lunch break / Poster exhibition*
13:30 - 13:50	Detection, *Satu Salo,* VTT
13:50 - 14:20	Response, *Emma Bennett, PHE*
14:20 - 14:40	Recovery - Disinfection and decontamination, *Satu Salo, VTT*
14:40 - 15:20	End user experiences, *Nicolas Poirot, APHP; Emma Bennett PHE*
15:20 - 15:40	SHIPSAN/Healthy Gateways project, *Martin Dirksen-Fischer, Freie und Hansestadt Hamburg*
15:40 - 16:00	Discussion, Conclusions and lessons learnt, *Ilpo Kulmala, VTT*
16:00	End of the day

2. Participants

The participants included invited stakeholders and PANDHUB project partners. The invitations were sent to the target audience in advance. Altogether, over 30 persons attended the event, most of them from EU countries. The attendees included relevant stakeholders such as representatives of airport operators, airline companies, transport operators, and subject matter experts. The attendees were a targeted audience.

3. Presentations and discussions

At the beginning of the symposium PANDHUB **Project Officer Gerburg Larsen** provided an overview of topical themes in EU Security Research. A typical feature of security is that it has to adapt to rapidly changing situations.

The first PANDHUB project presentation was given by **Mr. Ilpo Kulmala** (VTT), the Project Coordinator. He presented the background of the project: continuously growing air traffic facilitating fast and sometimes uncontrolled global spread of various diseases, and mass transport which may contribute to the disease spread within communities. He presented also the general overview of the project and how the problems were handled. The management of high threat pathogen incidents can be seen to consist of different phases:

- threat assessment
- preparedness
- prevention and protection
- detection
- response
- recovery, and
- lessons learnt.

The PANDHUB project has produced tools for each phase specifically suited for transport hubs.

Mr. Pertti Pasanen (UEF) presented the logic to find hot spots in transport hub environments. The hot spot within a hub is defined as a point or site where the risk of transmission of pathogens is at least temporarily increased due to favourable conditions or human behaviour. The potential transmission routes taken into consideration were airborne, droplet and contact (direct and indirect). Combined with the characteristics of the infrastructure and passenger flows the hot spots could be identified. His presentation was followed by **Ms Raija Koivisto** who presented a threat assessment process specific to transport hubs, threat identification systematics and risk matrix.

In the following discussions it was asked what kind of experts are necessary to make such a risk assessment. Two types of expertise are needed - knowledge of the target (transport hub experts) and the real-life processes in a hub (cleaning procedures, ventilation, etc.); the other expertise needed is about pathogens - how they behave, survivability, functionalities and characteristics, transmissions, etc. It was also suggested that organizing and facilitating training sessions for the threat assessment method could be considered.

It was discussed that public health authorities need to possess both of these competences. In PANDHUB project the focus has been on high impact incidents relevant for transport hubs, not diseases such as seasonal influenza.

In terms of classification of severity and probability, the transition between categories in the threat assessment method was discussed, provided that different organizations may have different categorizations. Essentially, in the beginning of the work there is a need for the expert group to decide on the classification and related assumptions, depending on the specifics of the transport hub. There are data validation challenges. This methodology could be further applied in appropriate expert environment.

Mr Stépahane Bastier (MEDES) presented the IT data collection tool developed within the PANDHUB project. Such a mobile data approach may be needed in data collection. The tool has been presented on several occasions to different audiences and it has received a lot of interest. MEDES will continue to maintain the system and has plans to commercialize it.

It was discussed whether the PLH public health locator used in civil aviation could be taken into account. The flexibility of the tool was highlighted: each organization can configure its own questionnaire and own the data; MEDES provides the service, the data are stored on the server they maintain but the data can also be stored in other ways - the data collection method is very open and flexible to be adapted to any situation. In the course of the PANDHUB project many tools have been developed as outcomes of the project: they may be curated not in one place but in several places.

From an airline perspective, it is difficult to handle many questionnaires. There are practical challenges with passenger locator cards, and a need for IT system was acknowledged. The locator type of information is a standard issue - these tools could be tailored - when the tool will be licensed this could replace the currently available tools. Locator or general declaration forms are different things; this is an epidemiology tool that can be adapted during crises. The role of regulations was also discussed - from the airline perspective it is not feasible to have this information as it is more suitable for the public health needs to have it. This topic was also discussed in light of the forthcoming EU data privacy regulation/directive. MEDES can install and deploy the data on the company servers and then the company is owner of the data.

In the preparedness presentation **Mr Ian Hall** (Public Health England, PHE) presented tools for disease surveillance, transmission potential, onward travel and border control intervention. Some of the actions can be modelled giving a theoretical insight into the effect of different measures on the disease transmission potential. For example, the importation probability was calculated for the exemplar diseases and it was found that the screening at entry points is relatively ineffective in catching the ill passengers.

In the following discussion it was pointed out that distinction between exit and entry screening is important. It was also noticed that screening is a political decision and may depend on the citizens' perception of governance and health authorities' capabilities to handle the situation.

The topic of new challenges and opportunities related to Internet of Things (IoT)and new technology in general was raised in terms of data protection. In terms of the potential of big data there is a need to understand what data science can bring to public health issues.

Ms Joanne Enstone (University of Nottingham) presented infection control measures to protect people and mitigate transmission. The guidance is customized for transport hubs and

has been created by reviewing relevant infection prevention and control guidance, transmission routes and existing preparedness guidance. It contains recommendations, personnel specific action cards for the communicable scenario diseases, principle based considerations for hub design and communicable disease preparedness checklists.

Discussion: distinction between exit and entry screening is important. At airports there are international and domestic terminals, but also mixed terminals. From perspective of high impact incidents this mixing effects at airports needs to be considered.

After the lunch, **Mr Martin Dirksen-Fisher** from Hamburg Port presented the SHIPSAN Joint Action with the aim to strengthen strategy at EU level for safeguarding the health of persons on board ships and preventing the cross-border spread of diseases. The focus is on health threats caused by communicable diseases and CBR agents.

In the following discussion it was asked why Finland and Sweden were not involved in the country list. Questions were raised also in relation to training of inspectors and issuing certificates for the trainers/inspectors. It was discussed also that the effects of face-to-face training are lasting compared to other methods such as e-learning.

Ms Satu Salo presented the detection part of the project. The microbial contamination detection supports epidemiological investigations, contact and source tracing and outbreak management. It is needed for identifying the micro-organisms and mapping of the extent of the contaminated areas as well as confirming the efficacy of decontamination. The microbes can be detected both from air and surfaces. She also presented specific requirements for detection in transport hub environments and results of “peace-time” background microbiological survey made in an airport.

In the following discussion it was asked why the focus was on surfaces and why samples were not taken from people. It is important to put this in perspective in the overall process of identifying hot spots - what one can do in high impact incidents. Passenger processes were analyzed carefully to define the most meaningful sampling places.

Ms Emma Bennett (PHE) presented the response tools, which have a potential role in limiting of spread of infectious diseases. They consist of early communication with hubs, staff and public, contact with Public Health authorities, and increased awareness and infection control. The work included a review of the use of real-time ICT tools like social media and apps for public communication during pandemics and disaster settings, with a set of considerations for potential use in transport hubs.

Mr Nicolas Poirot from Assistance Publique – Hôpitaux de Paris (AP-HP) presented end-users interest on the developed tools. He explained the health system organizations and their roles in high threat pathogen incidents with pandemic potential. Nicolas also presented the AP-HP experiences during 2017 Hadj pilgrimage and MERS-CoV case management and control.

Ms Emma Bennett (PHE) presented on end-user experiences describing the project workshops and validation exercise designed to obtain feedback from end-users’ perspectives.

In the last presentation by **Ms Satu Salo** (VTT) described the work done in terms of disinfection and decontamination. Cleaning actions may be needed in case of an outbreak management and following intentional spread of high threat pathogens. Satu explained decision making following biocontamination, resistance of various pathogens against

inactivation and different decontamination options. She presented also results of disinfection and decontamination studies made in the project.

In the following discussion it was highlighted that hydrogen peroxide needs to be used cautiously due to potential to cause unwanted effects , for example on the surface on the sealing in aircrafts. Aircraft materials are very different from conventional materials and their use and maintenance (including cleaning) are subject to strict regulations.

4. Symposium wrap-up

The Project Coordinator Mr Ilpo Kulmala summarized the discussions and, on behalf of the PANDHUB partners, thanked the symposium participants for their active participation. The successful completion of the project has required comprehensive multi-disciplinary approach and good cooperation between the partners, which has been pertinent to the consortium.