Learning during the crisis: assessing COVID-19 experiences at European points of entry (POEs) –

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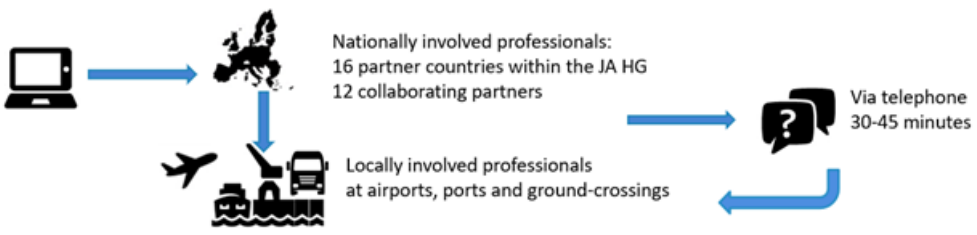
Background

More than ever, the role of points of entry (PoE) and the impact of international travel on the spread of disease has become clear in the current COVID-19 pandemic. Unlike previous international outbreaks, all European points of entry had to deal with the COVID-19 pandemic, facilitating a shared experience. With major efforts ongoing in preparing points of entry, we have been able to now see what additional efforts are required when we start to activate and prepare for responding to a specific disease, such as COVID-19. And since this pandemic is far from over, we should learn during this crisis to even better prepare and operationalize for new phases of response. We formulated the following research question: What have been barriers, facilitators, needs and lessons learned during the COVID-19 response at European ports, airports and ground-crossings so far?

Methods

We invited national partners and collaborating partners of the EU Joint Action Healthy Gateways as respondents in the interviews. We also asked them to forward the invitation to professionals locally involved at airports, ports and ground-crossings. We also recruited participants via already included interviewees. We scheduled semi-structured interviews per telephone, which took around 30 – 45 minutes. The interviews were audio recorded and transcribed verbatim. The majority of interviews were performed between June 2020 and the 11th of July, with some exceptions in August and September 2020.

Figure 1. Data collection



Inclusions	N=24
Countries	**N=11**
National level	**N=5**
Regional / local	**N=19**
Airport	N=15
Port	N=12
GrCr	N= 4

Table 1 Included participants

All participants are public health professionals, except for one crisis manager at a PoE. Public health professionals had jobs as medical doctors, nurse, inspectors, policy advisor, or a combination. One participant completed a written response to the interview questions, this participant's exact position is unknown.

Analyses consisted of transcription of all interviews, deductive coding, summarizing of codes per interview, and identifying elements in overarching themes.

Results - Airports

Challenges:

- Information management. Integrating information received from many different sources, and providing relevant information to other partners. Information management for international contact tracing in a timely manner was a particular challenge, due to inefficient infrastructure, such as being limited to manually written and handled PLFs;
- Professional and public communication, to keep everyone updated, avert fear, explain changes and differences of policies;
- Dealing with travelers, such as incoming travelers from risk areas that entered through other EU countries, dealing with seasonal workers, allowing crew changes on ships, finding accommodations for large groups, trusting health information and symptom presentation by travelers;
- Allow flexible organization of response needs in a hierarchical and bureaucratic system;
- Dealing with uncertainty due to knowledge gaps, contradicting guidelines, changing number of travelers, economic consequences.

Good practices:

- Organization of frequent meetings with all involved parties at the airport;
- To facilitate fast and direct communication among stakeholders involved at the airport. Examples were the exchange of telephone numbers across hierarchy and common chat rooms for those involved;
- The extreme dedication and good work ethic among partners involved;
- The exchange of knowledge among colleagues, different stakeholders, airports in Europe;
- The guidelines provided on a European level;
- The development of digital passenger locator forms.

Needs:

- Higher numbers of public health staff available to join the response;
- A public health professional physically present at the airport to be in contact with local stakeholders and being the link with public health authorities;
- Updates about situations in neighboring regions, countries and points of entry;
- A common international approach to the response;
- A more flexible response approach (plans, organizational structure) that allows fast adjustments of measures and the response when required;
- The means to perform timely international contact tracing, and a European aligned system.

> *"In Europe, we don't operate the same way. And because borders are open, people from risk areas will be able to enter your country and there is nothing you can do about it." – PH MD (airport)*

Results - Ports

Challenges:

- Dealing with fear to be infected or to infect others;
- To apply measures and have a continuity of practice despite a lack of staff;
- Repatriations of crew despite travel bans and different requirements of tests and conditions for different countries to accept repatriations;
- Contacting and interacting with a ship;
- Receiving trustworthy information about a ship, in and outside the Maritime Declaration of Health;
- Clarity of roles and responsibility between the ship and public health authorities;
- Averting fear among crew, colleagues, and port authorities;
- Dealing with asymptomatic cases on a ship;
- Dealing with the economic and public health interests of the ships;
- Dealing with cruise ships in the port, weighing the local public health capacity vs. the needs of a ship.

(results ports continued)
Good Practices:

- Having good relations and a wide network among different layers and organizations involved in the port;
- Developing emergency plans for COVID-19;
- Meeting with all involved stakeholders timely at the beginning of a crisis and frequently during a crisis;
- E-mailing with the ship captain or medical doctor;
- The dedication of professionals involved in the COVID-19 response in the port;
- To use the Maritime Declaration of Health to warn the public health authority;
- Involving ship sanitation inspectors while dealing with suspected cases on a ship, for their knowledge of the ship situation;
- Involve the military to organize the response.

Needs:

- More staff to employ operationally at the port and at the public health center;
- Better communication line between the medical doctor on board or the captain;
- Better plans and facilities for ship crew and economic migrants;
- Evaluation of the last months together with all partners involved;
- To focus on prevention of outbreaks on cruise ships;
- Trust among partners and the system, because not everything can be checked.

Results – Ground-crossings

Challenges:

- Operationalizing new ground-crossings between Schengen countries;
- Clarity on roles and leadership between public health and military services;
- Dealing with a lack of capacity; mainly staff, masks, gloves and thermometers;
- Verification of individuals that applied for exemption of the measures while crossing the border.

Good Practices:

- Involving the military to organize the response;
- Developing check flows of procedures in order to maintain continuity among changing staff;
- Agile public health systems;
- Exchange of experiences and acquired knowledge among staff;
- Close collaboration between public health and border security;
- To take the time to explain the measures and the situation to truck drivers entering the country;
- Digital PLF for truck drivers that cross the border often;

Needs:

- More public health staff to guarantee the work flow on points of entry, but also to take back up regular, non-COVID-related work;
- More public advertisement on what could happen if travelers hide symptoms at the border;
- Legal instruments to maintain public health measures;
- Better thermometers that work from a distance, and evaluation of thermometers.

Major lessons learned as indicated by the participants are shown in the blue box below the conclusions.

Conclusions

We collected first-hand data from public health professionals involved at points of entry in Europe during the COVID-19 pandemic. Major findings in this study are the dedication in the sector and the responsibility that is felt to deal with this crisis. Despite this shared attitude, great challenges occur as a result of a serious lack of available staff for all points of entry types. There is both a shortage of staff to respond to COVID-19 and to maintain the regular work that these professionals did before the pandemic. Also, a threefold situation led to even more pressure on public health staff: 1) the amount of newly generated, sometimes contradicting information about the SARS-CoV2 virus, COVID-19, tests and response measures, in combination with 2) the many questions posed to public health professionals by the public, local partners and regional and national levels, and 3) the big decisions that had to be made amidst enormous public health and economic interests.

Our study shows how the professionals involved with the response at points of entry are in between national and international response. Their nation should be protected from the introduction of the virus, leading to flight bans that had to be implemented and ports being closed. On the other hand, they experience the results of policy and measures in other countries and vice versa. For example, travelers from risk areas for which a country launched a flight ban, could still enter via other countries where this ban was not in place. Also, professionals involved at ports faced large numbers of crew being stuck on their ships, hardly being able to return to their home countries, but in too large numbers to be confidentially dealt with by local port authorities. From the above follows the call to increase efforts to align European response measures.

> *"Definitely points of entry could play a better maybe role in sharing, spreading some information and they should be well informed."*

Important good practices are enhanced networks and relations among local PoE and public health partners, and between local to national stakeholders. Knowing who is on the other side and being able to reach each other direct and fast was indispensable. Although a functioning cooperation structure was already present for some PoE, others had to invest in this network during the start of the crisis. Partner cooperation and organization should be considered thoroughly and actively maintained before and after crisis times. Also, innovations such as the digital passenger locator form are considered best practices that facilitate the international response, and many participants made a plea to align these innovations and general policy among European countries in order to increase the impact of measures.

This study had the opportunity to include participants through 24 interviews, which can still be considered a small sample. These participants were selected through the EU Joint Action Healthy Gateways partners, and reflect experiences from eleven countries. Since learning during and after a crisis is required to improve the public health response, this study's results could be used to shape the agenda for capacity building and re-organization of the public health infrastructure at PoE in Europe, and to re-evaluate lessons and needs in the coming months of this pandemic and for potential future public health threats.

Lessons learned:

- Know the partners in crisis and how to reach them fast.
- Communication to the public is key, because only simple measures are available.
- European countries should align their policies and measures.
- Being guided by national authorities alone is not sufficient, PoE also have to deal with international partners and their standards.
- Talking about disease X did not make PoE prepared for it.
- A response plan never covers what will happen. It is of support, but everyone needs to keep thinking outside the box.
- Organizational memory during infectious disease response is essential.
- Points of entry are not isolated islands, they are part of society.

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