


Developing an Interoperable Port Health Contingency Plan [†]

Robert Conway ^{1,*}, Margaret M. Brennan ² , Paul Mullane ³, Cliodhna O'Mahony ¹, Finán Gallagher ⁴, Gavin McDonnell ⁵, Brendan Lawlor ⁶, Darryl Coen ⁷, Regina Kiernan ⁸, Margaret B. O'Sullivan ⁹ and Máirín Boland ^{1,‡}

¹ Office of the Director of National Health Protection, HSE, D01 A4A3 Dublin, Ireland

² Public Health Area B, HSE, D08 W2A8 Dublin, Ireland

³ Public Health Area A, HSE, D08 W2A8 Dublin, Ireland

⁴ Environmental Health Service, HSE, Letterkenny, F92 FW6Y Co. Donegal, Ireland

⁵ Environmental Health Service, HSE, Border Control Post, Corballis Park, Dublin Airport, K67 X4X5 Dublin, Ireland

⁶ Emergency Management, HSE, D20 CK33 Dublin, Ireland

⁷ National Ambulance Service, HSE, D11 FE03 Dublin, Ireland

⁸ Public Health Area F, HSE, Castlebar, F23 HN50 Co. Mayo, Ireland

⁹ Public Health Area D, HSE, T12 XH60 Cork, Ireland

* Correspondence: robert.conway@hpsc.ie

† Presented at the Public Health Congress on Maritime Transport and Ports 2022: Sailing to the Post-COVID-19 Era, Athens, Greece, 21–22 October 2022.

‡ Chair of HSE Multi-Disciplinary Port Health Network.

Abstract: Contingency planning is a vital component of robust national emergency preparedness. In Ireland, the Health Service Executive Port Health Network engaged with Dublin Port from July 2021 to develop Ireland's first interoperable port health contingency plan, with a view to rolling it out to other designated ports. The EU Healthy Gateways tool for public health emergency contingency plan development (2021) was utilized to support this project, ensuring public health emergency contingency planning across varied public health threats. The principles of this multi-agency approach to port contingency planning, as described, are applicable to other designated ports within Ireland and other jurisdictions.

Keywords: port; port health; contingency planning; infectious disease; points of entry



Citation: Conway, R.; Brennan, M.M.; Mullane, P.; O'Mahony, C.; Gallagher, F.; McDonnell, G.; Lawlor, B.; Coen, D.; Kiernan, R.; O'Sullivan, M.B.; et al. Developing an Interoperable Port Health Contingency Plan. *Med. Sci. Forum* **2022**, *13*, 20. <https://doi.org/10.3390/msf2022013020>

Academic Editors:

Christos Hadjichristodoulou and
Varvara Mouchtouri

Published: 2 December 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Integral to countries' obligations under the International Health Regulations (2005) (IHR) is the core capacity requirement to "detect, assess, notify and report events in accordance with the regulations" and to "respond promptly and effectively to public health risks and public health emergencies of international concern" (PHEIC) [1]. There are also obligations concerning designated ports in relation to routine prevention and control measures and responses to events that may constitute a PHEIC [1].

The IHR require each state party to develop, strengthen and maintain these core public health capacities at the local community level and/or the primary public health response level, the intermediate level and national level [1]. State parties should also assess their national legislation and regulations and make any revisions necessary for compliance with the IHR, including requirements to provide key sanitary and health services and facilities at points of entry designated by state parties [1].

Following two years of the COVID-19 pandemic, the return of a highly active global transport network has increased the risk of a public health event occurring such as a case of high-consequence infectious disease at points of entry. Contingency planning is a vital component of robust national emergency preparedness [1]. Given the complex range of stakeholders involved in responding to a public health emergency in a port, shared contingency planning across multiple disciplines and sectors is essential.

In Ireland, the Health Service Executive Port Health Network (HSE PHN) was established in 2014. A key function of the HSE PHN is to ensure interoperability of the procedures and protocols of the multidisciplinary health disciplines involved at points of entry with port authorities. Health disciplines include public health, environmental health, emergency management and ambulance services.

The Irish Infectious Disease Shipping Regulations identify five designated sea ports and set out the responsibilities of ships' masters and port health authorities at these ports [2]. Dublin Port is one of these designated ports and a key strategic access point for Ireland, handling almost 50% of all trade in the Republic of Ireland [3].

The HSE PHN engaged with Dublin Port in July 2021 to develop Ireland's first interoperable port health contingency plan, with a view to rolling it out to other designated ports. The EU Healthy Gateways tool for public health emergency contingency plan development (2021) was utilized to support this project, to ensure public health emergency contingency planning for all types of public health threats [4].

2. Material and Methods

The aim of the process was to develop an overarching contingency plan which would be modified and updated on an ongoing basis, where each stakeholder agency (as identified below) would continue to hold its own plan.

From the health side, an established health service (HSE)-specific response plan for the management of a port public health event at a seaport was published in 2017 and is updated annually [5]. This response plan serves as a guide to health service stakeholders involved in managing a port public health event. From the port side, local emergency plans to be included in the shared contingency plan were already in existence at Dublin Port and required mapping for interoperability.

A multi-agency group involving the Port Health Network and the Dublin Port harbour master was convened and chaired by the Port Health Network, with the aim of developing interoperable guidance, including roles and responsibilities, for port contingency planning [4]. Relevant stakeholders for the multi-agency group were identified as: HSE Public Health, National Ambulance Service, Emergency Management, Environmental Health Services, An Garda Síochána (Irish police), Dublin Port (including the harbour master, land operations, Emergency planning and training, and security) and private operators at the seven Dublin Port terminals (including terminal operators, shipping and ferry companies).

The Port Health Network and the port authority briefed the multi-agency group on the aims and context of shared contingency planning [4]. An overview of the Healthy Gateways tool [4] was presented to the multi-agency group in detail, including templates to be used to support each agency in their contribution to the plan.

A survey was used to gather contributions to the contingency plan from all of the stakeholder organisations, using a questionnaire circulated by the port authority. The survey covered detailed health and safety issues, the processing of travellers, staff numbers, facilities and resources, designated quarantine facilities, any passenger screening, having a written procedure for managing a case of infectious disease, and a written protocol for informing the harbour master in the event of a passenger suspected of being infected with an infectious disease.

3. Results

Relevant stakeholders attended and engaged with the first meeting of the multi-agency group. These stakeholders included the HSE Port Health Network members, Environmental Health Services, regional Departments of Public Health, the National Ambulance Service, Emergency Management, relevant port authority representatives and private companies relating to port operations. Responses were received from six (85.7%) of the seven terminals at Dublin Port which were surveyed. All facilities had access to quarantine facilities; the catered number of passengers was low, ranging from one to four. All six had a written procedure for managing a case of infectious disease and a written protocol for

informing the harbour master in the event of a passenger suspected of being infected with an infectious disease. Four had an emergency coordination centre. Only four of the six (66%) had an existing infectious diseases plan.

The draft contingency plan is still in development, with an exchange of existing plans and a full review of the survey responses to inform its progression.

4. Discussion and Conclusions

The use of the Healthy Gateways tool [4] has supported the initial development and assessment of a port-specific contingency plan, which is informed by existing but separate protocols.

The active engagement of a wide range of relevant stakeholders has helped to further develop professional networks and working relationships which will be beneficial in the event of an emergency. A clearer understanding of each stakeholder's role has been facilitated by the process.

The principles of this multi-agency approach to port contingency planning, as described, are applicable to other designated ports within Ireland and other jurisdictions. Following completion of the contingency plan for Dublin Port, the process will be replicated to develop shared contingency plans for all other designated seaports in Ireland.

Author Contributions: Conceptualization, M.B. and F.G.; methodology, M.B. and F.G.; formal analysis, R.C. and M.B.; data curation, R.C. and M.B.; writing—original draft preparation, R.C., C.O., and M.B.; writing—review and editing, R.C., M.M.B., P.M., C.O., F.G., G.M., B.L., D.C., R.K., M.B.O., and M.B.; supervision, M.B.; project administration, C.O. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: MDPI Research Data Policies.

Acknowledgments: We acknowledge with thanks the stakeholder agencies who engaged with this process.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. World Health Organization, International Health Regulations. 2005. Available online: <https://www.who.int/publications-detail-redirect/9789241580410> (accessed on 24 August 2022).
2. S.I. No. 4/2008—Infectious Diseases (Shipping) Regulations (2008). Available online: <https://www.irishstatutebook.ie/eli/2008/si/4/made/en/print> (accessed on 24 August 2022).
3. Statistics of Port Traffic. Central Statistics Office. 2021. Available online: <https://www.cso.ie/en/releasesandpublications/er/spt/statisticsofporttrafficquarter32021> (accessed on 24 August 2022).
4. Mouchtouri, B.; Kourentis, L.; Dirksen-Fischer, M.; Miltzer, K.C.; Dionisio, M.; Janiec, J.; Kokosharova, G.; Anagnostopoulou, L.; Kostara, E.; Bygvraa, D.A.; et al. EU HEALTHY GATEWAYS. Tool for Public Health Contingency Plan Development and Assessment for Ports (Milestone 7.9—Deliverable 7.2). Version 1–19 February 2021. EU HEALTHY GATEWAYS Joint Action (Grant Agreement Number—801493). 2021. Available online: <https://www.healthygateways.eu/Tool-for-contingency-plan-development-and-assessment-for-ports> (accessed on 24 August 2022).
5. HSE Port Health Multidisciplinary Network, HSE Response Plan for Management of a Public Health Event at a Seaport. 2022. Available online: https://www.lenus.ie/bitstream/handle/10147/630109/HSE%20Response%20Plan%20for%20management%20of%20a%20Public%20Health%20event%20at%20a%20seaport_v3_12Feb2022.pdf?sequence=5&isAllowed=y (accessed on 24 August 2022).