International Biosecurity Preparedness at Tourist Ports of Entry: An Assessment of Ireland

Dr.Domhnall Melly,

Dr.James Hanrahan

*Institute of Technology, Sligo, Ireland* 

Institute of Technology, Sligo, Ireland

Email: domhnall.melly@mail.itsligo.ie

E-mail: hanrahan.james@mail.itsligo.ie

Abstract

The purpose of this research is to assess international biosecurity preparedness in order to

mitigate the risk of future pandemics as a result of tourism. A mixed methodology was

utilised for this research involving systematic content analysis of international biosecurity

regulations, frameworks, plans, strategies, policies, and tools (biosecurity preparedness

thereafter) and questionnaires to determine the compliance of essential criteria at Ireland's

tourist ports of entry. Despite a reasonable presence of biosecurity criteria, specific tourism

criteria were not found within international preparedness. This was reflected in Ireland's

tourist ports of entry that all met none of the biosecurity criteria. A greater emphasis on

tourism is needed within international preparedness and robust national evaluation processes

underpinned by international law. National tourism planners and policymakers need to take

the lead on issues of tourism and infectious disease in order to develop destinations that are

resilient post-COVID-19.

**Keywords:** Infectious Disease, Tourist Ports of Entry, International Biosecurity Preparedness

Introduction

Researchers have long been suggesting that the odds of a major infectious disease pandemic

were never higher (Smith and Guégan 2010; Daszak, 2012). This suggestion stems from

increasingly rapid tourist movements through global air transportation which has been

universally deliberated as a major driving force pushing infectious diseases into previously

unaffected locations at an unprecedented pace (Findlater and Bogoch, 2018; Gössling et al.,

2020). Thus, increasingly interconnected tourism destinations highlight the need for a globally integrated biosecurity system. International law and standard-setting organisations and treaties like the WHO, EC, UNWTO, and the ECDC, are instrumental for international biosecurity by guiding national-level planning approaches.

Resources for tourist communication, biosecurity monitoring, surveillance, quarantine at ports of entry, and rapid response is required under IHR capacities that are linked to the Global Outbreak Alert and Response Network (GOARN) (WHO, 2019). However, as countries utilised these core capacities to complete self-assessments and self-reporting to WHO as a Joint External Evaluation (JEE) to ensure IHR compliance, they received criticism for a lack of transparency and not representing the true measure of capacity for health security within signatory states (Gostin and Katz, 2016). Therefore, this research will primarily focus on biosecurity preparedness from International law and standard-setting organisations and treaties and investigate their suitability to prepare for the threat of infectious diseases as a result of tourist vectoring. Moreover, using Ireland as a pilot study, this research will capture how international biosecurity preparedness is being implemented nationally, and solutions for conformity.

# Methodology

The purpose of this study is to investigate international biosecurity preparedness from official international organisations for providing appropriate biosecurity for tourism. This will also address issues of national conformity by probing Ireland's biosecurity preparedness just before the COVID-19 pandemic began.

Non-probability purposive sampling identified twenty-three international biosecurity preparedness documents. Twenty-one biosecurity criteria and five specific tourism biosecurity criteria were derived from a previous study on tourism biosecurity risk

management and planning (Melly and Hanrahan, 2020). This facilitated a systematic content analysis for appropriate biosecurity preparedness that includes tourism within international standard-setting organisations.

Irish tourist ports of entry were assessed for the presence of the same biosecurity and tourism biosecurity criteria through the development of specifically designed questionnaires to determine the existence of criteria to comply with international biosecurity preparedness. The sample of Irish tourist ports of entry was selected using the non-probability purposive sampling method that identified twelve tourist ports of entry.

#### **Results and Discussion**

International biosecurity preparedness

This analysis revealed that although the international biosecurity preparedness sampled conforms to the majority of essential criteria for biosecurity preparedness. However, the analysis revealed a high percentage (82.6%) of all international biosecurity preparedness analysed were found to have no biosecurity vector mitigation measures for tourists. The analysis also determined a large portion (91.3%) of all international preparedness had no evidence of biosecurity communication for tourists in place. Furthermore, 95.7% were found to have no biosecurity tourist alerts in place.

## Tourist ports of entry in Ireland

The results from Ireland's tourist ports of entry outline a very concerning situation. None of the essential criteria, tourism criteria, or port of entry criteria was found to be in place at all (100%) of the points of entry assessed. This is despite Ireland using legislation to designate three IHR airports (Dublin, Shannon and Cork) and five IHR designated seaports (Dublin, Cork, Limerick, Waterford, Rosslare) which are required under IHR to maintain core capacities to deal with possible cross border health threats (Boland, and O'Riordan, 2019).

Perhaps this is a reflection of the significant lack of specific tourism designed criteria outlined within international biosecurity preparedness.

# **Conclusions and Implications**

Despite the instrumental role international standard-setting organisations play in coordinating, guiding, and implementing essential biosecurity processes at national level; these contain minimal focus on tourism. Considering the 100% of all criteria missing within the entire sample of Irish tourist ports of entry, genuine concerns are raised about Ireland's exposure to a serious biosecurity breach.

Despite this research exposing gaps in international biosecurity preparedness for tourism which is also reflected nationally in Ireland, national tourism planners and policymakers should be proactive and lead from the front in terms of a planning process that incorporates essential tourism biosecurity criteria. Going forward, it appears necessary that future JEE assessments are conducted independently and underpinned within international law.

#### References

Boland, M. O'Riordan, M. (2019). Preparedness and Management of Global Public Health Threats at Ports of entry in Ireland and the EU in the Context of a Potential Brexit. Globalization and Health, Vol.15, No.53, DOI: https://doi.org/10.1186/s12992-019-0496-4

Daszak, P. (2012). Anatomy of a Pandemic. Lancet, Vol.380, No.9857, pp.1883-1884. DOI:https://doi.org/10.1016/S0140-6736(12)61887-X

Findlater, A. Bogoch, I.I. (2018). Human Mobility and the Global Spread of Infectious Diseases: A Focus on Air Travel. Trends in Parasitology, Vol.34, No.9, pp.772-783

Gössling, S. Scott, D. Hall, C.M. (2020). Pandemics, Tourism and Global Change: A Rapid Assessment of COVID-19. Journal of Sustainable Tourism, pp.1-22, DOI: <a href="https://doi.org/10.1080/09669582.2020.1758708">https://doi.org/10.1080/09669582.2020.1758708</a>

Gostin, L.O. Katz, R. (2016). The International Health Regulations: The Governing Framework for Global Health Security. The Milbank Quarterly, Vol.94, No.2, pp.264-313. DOI:10.1111/1468-0009.12186

Melly, D. Hanrahan, J. (2020). Tourism Biosecurity Risk Management and Planning: An International Comparative Analysis and Implications for Ireland. Tourism Review, Vol.76, No.1, pp.88-102. <a href="https://doi.org/10.1108/TR-07-2019-0312">https://doi.org/10.1108/TR-07-2019-0312</a>

Smith, K.F. Guégan, J.F. (2010). Changing Geographic Distributions of Human Pathogens. Annual Review of Ecology, Evolution, and Systematics, Vol.41, pp.231-250.

World Health Organisation, [WHO]. (2019). Strengthening IHR and Health Emergency Capacities Through Implementation of National Action Plans. Available online from: <a href="https://apps.who.int/iris/bitstream/handle/10665/327908/Agenda8.3-sea-rc72-8Rev.1-eng.pdf?sequence=1&isAllowed=y">https://apps.who.int/iris/bitstream/handle/10665/327908/Agenda8.3-sea-rc72-8Rev.1-eng.pdf?sequence=1&isAllowed=y</a>. Accessed on: 11/05/2020