

THE COVID-19 PANDEMIC AND ITS IMPACT ON THE MARITIME SECTOR IN CROATIA AND THE WORLD

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Abstract

The mere fact that more than 90% of global trade is performed by maritime shipping confirms the importance of the maritime industry in the world. During the current Covid-19 pandemic, seafarers still face the risk and mobility obstacles that pose a threat to their existence, and consequently to their physical and mental health. The well-functioning seaborne trade is extremely important for the internal and international markets as it enables delivery of goods worldwide.

However, many seafarers on board cargo vessels sailing across European waters are the third country nationals. Regardless of their citizenship, they should be able to easily travel to ports of embarkation/disembarkation and to return home because this, in addition to other effects, would contribute to mid-term and long-term efficiency of the maritime industry.

In Croatia, there are approximately 20,000 seafarers, 15,184 of whom take part in international and the rest in national navigation. According to the Croatian Ministry of Maritime Affairs, Transport and Infrastructure, the estimated number of seafarers (20,000) makes up merely 0.47% of the total population (4,290,612 according to the 2011 Census), which means that four or five out of a thousand people in Croatia are seafarers. Seafarers make up the same share (0.47%) of the general population in the Philippines, which is considered to be “the land of seafarers”.

The absolute number of Croatian seafarers is not large, but when compared to the population of the country it can be noted that Croatia is one of the countries with the highest incidence of seafaring profession worldwide.

In addition to seafaring, tourism also has an important share in Croatia's GDP, which includes cruise tourism, a branch closely related to the maritime sector.

Both branches of the economy have been heavily hit by the current Covid-19 pandemic. Repatriation and embarkation have become more difficult due to the pandemic. As a result, seafarers remain stuck on board for months following their contract expiry, awaiting possible return home, which is a serious threat to their mental and physical health.

A partial solution to these problems lies in awarding seafarers the key/priority worker status and in implementing priority seafarer vaccination against Covid-19 at the global level.

Key words: seafaring, Covid-19 pandemic, crisis, seaborne trade

Introduction

Maritime transport is amongst the most important modes of shipping worldwide. It has been around for centuries, helping humans to meet their travelling and business needs and requirements. Despite the invention of new modes of transport, maritime transport has not lost its importance. It underpins the global supply chain linkages and economic interdependency with seaborne shipping and ports estimated to handle over 80 per cent of the global merchandise trade by volume and more than 70 per cent by value.

Maritime transport is also a great medium in tourism and can play a crucial role in the development of an economy. Various countries around the globe generate large revenues from tourism via maritime transport. Due to the importance of maritime transport, the associated tourism industry can be considered as a sustainable source of income.

According to the BIMCO manpower report, the global supply of seafarers in 2015 was estimated at 1,647,500 seafarers, of which 774,000 were officers and 873,500 were other crew members [1].

The outbreak of Covid-19 started at the end of 2019 and has, so far, had a devastating impact worldwide, sparing no country. The pandemic, a twenty-first-century global calamity, has been

a true reflection of the global economy and global village we live in. It resulted in the shutdown of the world, which lasted for months, with 142,238,073 confirmed cases, 3,032,124 confirmed deaths, and 223 countries, areas or territories reporting positive cases as of 21st April 2021 [2].

The respiratory disease Covid-19 is caused by the new coronavirus, named SARS-CoV-2. The virus was first reported in China at the end of 2019. Since then, it has spread to 224 countries. In 80% of people, Covid-19 is not a severe disease and no hospital treatment is necessary. About 15% of those infected require oxygen and hospital care and additional 5% need intensive care. While people over 60 years of age and/or those with underlying medical conditions are at a higher risk of developing serious illness and requiring additional care, numerous research studies and reports have proved that severe illness can develop in people of any age [3].

Since lockdown measures imposed by countries around the world are still in place, the organisation of crew change is always challenging and often impossible. Despite the UN General Assembly Resolution adopted in December 2020, recognising seafarers as key workers and aiming at facilitating their safe and unhindered movement for embarkation and disembarkation, there are still some seafarers holding Croatian certificates and documents that are due to expire at some point, who are embarked on board vessels with no possibility to organize crew change and their repatriation [4,5].

The impact of COVID 19 pandemic on the global economy and maritime industry

Global shipping relies on about 1,600,000 seafarers worldwide, who make it possible for the clients across the world to receive the goods and products needed for business operations and everyday life [1].

The first half of 2020 was marked by widespread lockdowns, travel restrictions, fast-rising unemployment, government rescue packages and oil and stock market crashes. The second half of the year remained highly uncertain but there was the consensus for full year gross domestic product single digit decline, and expectations for a muted recovery as lockdowns started to be lifted. The performance in 2021 depends on the ability to contain the outbreak, development of the efficient vaccines, the effectiveness of various stimulus packages, the impact on consumer habits, as well as on the government debt-tackling policies [3].

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Before the Covid-19 pandemic started, the demand for cruising worldwide increased from 1.8 million passengers in 1980 to 26.75 million in 2017, at an annual growth rate of 7.5%, while the annual growth rate for the land-based tourism was 4.9% over the same (1980-2017) period [4].

Considering the global character of cruising tourism, many organisations and corporations have united in their fight against communicable diseases on cruise ships. Drops in the number of ship calls varied among the different country groupings and economies. This decline also varied with the ship type.

Passenger ships have been affected the most. The nature of the Covid-19 pandemic, the consequent lockdowns in several countries and cities and the reduction in travel, are the major factors behind the temporary suspension of coastal shipping services in many countries. At the same time, cruise shipping ceased operations worldwide. Since April, one in three passenger ship calls was cancelled. As a result, at the end of the second quarter of 2020, the total number of global passenger ship calls were 17 per cent lower than the year before.

The Covid-19 Economic impact barometer that has been developed by the International Association of Ports and Harbors (IAPH) reveals that, at the global level and since Week 12 of 2020, about 45 per cent of the ports faced a drop of more than 5 per cent in the number of container ship calls compared to the situation under normal operating conditions.

Some of the maritime and shipping industry's problems include border restrictions for airlines and port shutdowns, reduced demand for freight, disputes in laytime arbitration, disputes between owners and charterers of such vessels due to lack of time and resources, bankruptcy due to reduced demand and the failure to control the company's finances during this era of decreased demand for shipping and freight [4].

Seafarers and mental health during COVID 19 pandemic

The maritime industry depends heavily on seafarers, i.e. the human resources in shipping. The Covid-19 crisis has posed many challenges to seafarers on board, who now have to extend their contracts because of crew change issues, as well as to those at home, who cannot join their vessels and cope with financial difficulties. Seafarers onboard ships are not only worried about their own health but also about the health of their families and friends back home [6].

A recently published survey about seafarers' experience during the Covid-19 pandemic showed that more than 40% of the participants had experienced symptoms of depression and more than 50% of them reported symptoms of anxiety. Mental health, not only of seafarers but also in general, is now in the spotlight more than ever before.

Situation in Croatia

In Croatia, there are approximately 20,000 seafarers, 15,184 of whom take part in international and the rest in national navigation. According to the Croatian Ministry of Maritime Affairs, Transport and Infrastructure, the estimated number of seafarers (20,000) makes up merely 0.47% of the total population (4,290,612 according to the 2011 Census), which means that four or five out of a thousand people in Croatia are seafarers. Seafarers make up the same share (0.47%) of the general population in the Philippines, which is considered as “the land of seafarers”.

From January to December 2020, there were 48.7 million passengers transported, which is a 42.1% decrease compared to the same period in 2019. Annual data reports reveal that a drop in passenger transport was experienced in all modes of transportation: 33.9% in railway transportation, 44.2% in road liner transportation, 42.1% in deep-sea and coastal navigation, and 70.3% in airline traffic [7].

Since lockdown measures imposed by countries around the world are still in place, the organisation of crew change is always challenging and often impossible. Despite the UN General Assembly Resolution adopted in December 2020, recognising seafarers as key workers and aiming at facilitating their safe and unhindered movement for embarkation and disembarkation, there are still a number of seafarers holding Croatian certificates and documents that are due to expire at some point, who are embarked on board vessels with no possibility to organize crew change and their repatriation [5].

In addition to maritime shipping industry, one of the important items in Croatia's GDP is tourism. Before the 2019 pandemic, Croatia saw a steady increase in the arrivals and stays of foreign and local tourists for five years in a row. In 2018, there were 89.7 million overnight stays, which was 4% more than the year before. The share of tourism sector in the national GDP amounted to 11.4% in 2016 [7]. However, the share of tourism in GDP considerably fell in 2020 due to the pandemic, revealing a number of shortcomings in tourism trends and in heavy reliance of the national GDP on tourism industry. Expectedly, the least affected tourism branch

in Croatia was nautical tourism (due to highest epidemiological safety). Obviously, epidemiologic measures, such as social distancing, are much easier introduced in boating than in cruise shipping industry [8]. It is expected that the tourism industry would grow again 2021, as a result of national and international vaccination programs, lifting of travel restrictions and opening of borders.

Health protection and the role of World Health Organization in Covid-19 pandemic

The World Health Organization (WHO) was established in 1948 as the successor to a century-long legacy of international health cooperation. Created as a coordinating authority on international health work, the WHO enjoys an expansive constitutional mandate and far-reaching powers under international law. As a multilateral agency, the WHO is unique among stakeholders in global health in that it wields the authority to promulgate both binding as well as non-binding agreements. The International Health Regulations (IHR) serve as a particularly noteworthy example of a binding agreement made by the WHO, and have presently been accepted by 196 member countries. The IHR specify the process by which the WHO may formally declare a Public Health Emergency of International Concern (PHEIC). This agreement played a crucial role in directing the WHO's initial response to the Covid-19 outbreak. Under the IHR, member countries are required to report potential PHEICs occurring in their territories within 24 hours following initial detection. Even though the WHO's response to the pandemic has fallen short of perfection, the agency has at all times played a necessary and vital role in the battle against the Covid-19 pandemic [9].

Implementation of the anti-epidemic measures in Croatia

As a member of the European Union and the World Health Organization, Croatia has to comply with the guidelines of these institutions. On the 31st of January 2020, the Ministry of Health of the Republic of Croatia established the Civil Protection Headquarters [10] with the purpose of managing and restraining the epidemic of Covid-19 in Croatia. The decision was founded on the *Law on the protection of the population from infectious diseases*, which has been legally in effect for a long time. The Law defines the measures for addressing the epidemic occurrences and outbreaks, which may considerably reduce the freedom and rights of the citizens. The institution in charge of implementing anti-epidemic measures in Croatia is the Croatian Institute of Public Health [11].

From the epidemiological standpoint, these measures are necessary to combat the epidemic and save human lives. For example, this has been clearly effective in Australia and New Zealand. These two countries implemented strict epidemiological measures and managed the crises efficiently. Meanwhile, both countries launched the immunisation process that has ensured the continuity of the good epidemiological situation [2].

No doubt, the most efficient preventative measure against an epidemic is vaccination. In Croatia, the administration of vaccines against Covid-19 started at the end of 2020. After initial problems related to insufficient and irregular vaccine supply over the first quarter of 2021, the mass vaccination started. According to the national register of the vaccinated population (e-Cijepih), 20.9% of Croatia's adults received at least one dose of vaccine against Covid-19 by 30th April 2021 [11]. Seafarers and tourism personnel have been vaccinated, in an organised way, since the end of April / beginning of May 2021.

Preventative and anti-epidemic measures on board ships

Crew members on board should be educated and be familiar with the symptoms of Covid-19 and how to report them to the master. If someone is confirmed as positive or suspect case of Covid-19 on board – there are a few isolation precautions to be followed:

- Single occupancy rooms with private bathrooms, with door closed;
- Persons should wear a face mask anytime they are outside of isolation;
- No direct contact with other persons except for the designated caregivers;
- Caregivers should wear proper personal protective equipment (PPE) and ship companies should always provide adequate PPE. [3,4]

General preventative measures such as physical distancing, washing hands with soap and water or the use of hand sanitiser, good respiratory hygiene, and mask wearing remain the main methods to prevent spreading of Covid-19. The seafarers should resume these practices once vaccinated.

It is very important to preserve mental health. The affected individuals are recommended to talk to people they can trust. Those who are on board are advised to talk to their colleagues and mates, and to contact their friends and family through phone, email and social media. The seafarers are also advised to maintain a healthy lifestyle – including proper diet, sleep, exercise and social contacts with other crew members. It is recommended to not use smoking, alcohol or other drugs to manage emotions.

What next?

The current Covid-19 pandemic situation is changing on a daily basis. The humanity has faced a pandemic of huge proportions. The virus has been constantly mutating, the researchers gain new insights into the nature and dissemination of the virus and its variants, there is a global battle going on against the virus and for the implementation of epidemiologic measures and immunisation. There are many facts yet to be known. Although every country is specific in terms of its administration, demographic, economic, social and geographic features, it has been become clear that the virus SARS-CoV-2 easily passes through all borders and barriers [3,4,12]. This means that the counter-pandemic efforts have to be coordinated at global level, while some of the specific anti-epidemic measures may be designed and introduced locally. This is the current strategy in Croatia as well.

Depending on the type and the way the disease is transmitted, national and international public health authorities may have a range of various preventative and anti-epidemic measures.

It is the irrefutable fact that vaccination is the most efficient preventative measure. Vaccination is a safe, simple and effective way to protect people from a disease before actual exposure to it. A vaccine stimulates the immune system to produce antibodies and other cells that fight the disease, just as if person has been exposed to the disease itself. Many Covid-19 vaccines, authorised for use in different countries, have been reported to be more than 50% and often over 90% efficient in preventing the disease in the vaccinated population. In some cases, the efficacy data have not yet been published. However, all viruses, including SARS-CoV-2, change over time resulting in the emergence of new variants. These variations may cause reduced vaccine efficacy and further complicate the existing situation [2,8].

Research studies show that people who have had Covid-19 may be infected again, and that the immunity after clinical disease may not protect a person against new mutations. Protection gained through vaccination is likely to be broader and people can be vaccinated shortly after recovery from the disease. No testing is necessary. However, due to the limited supply of vaccines, vaccination campaigns may be deferred for a number of months or the vaccination program may be modified [6].

Although Croatia is a country with a strong maritime tradition, the treatment of seafarers as the priority or key population was delayed. Their vaccination started in late April 2021, together with the vaccination of tourism personnel. Unfortunately, in this general turmoil about the

pandemic, this category of workforce was not recognised as essential. Due to delayed vaccination, the seafarers experienced a number of administrative hurdles – when joining the ship or when coming back home. Due to restrictions and complications in airline traffic and other modes of transportation, the repatriation of seafarers was difficult, often resulting in the prolonged stay on board. This problem was experienced globally [13,14].

Conclusion

At this moment, the pandemic Covid-19, caused by the virus SARS-Cov-2, continues to present the most serious global public health and safety threat. Almost all countries have re-directed huge resources with the purpose of restraining the pandemic, while trying to preserve their economies.

Future development of the pandemic situation is uncertain and it is hard to anticipate the end of the Covid-19 pandemic. Time and science will provide information and answers to many questions and aspects that are currently unclear. At any rate, according to the available knowledge, insights, research results, references and experience, it is not expected that the causative agent of the Covid-19 disease will be eliminated soon. This is, partly, owing to the fact that animals and RNA as genetic material are involved in the virus life cycle, which results in a highly pronounced ability of mutation, as it can be currently experienced around the world (emergence of UK, South African, Brazilian and other variants). It will probably take a lot of time until the fight against this dangerous disease is over. Meanwhile, humans will have to find ways to resume their life, recover their economies, travel and navigate. It is expected that, in the near future, the Covid-19 will greatly affect the seaborne trade and cruise ship industry, with adverse impacts on the world trade and tourism.

This pandemic has, once again, confirmed that vaccination is the most efficient preventative measure. Increased immunisation of the general population is expected to result in lower rates of infection, hospitalisation and death. When planning and launching the vaccination campaign, it is necessary to define priorities and critical populations: along with the caregivers, chronic patients, old people and other vulnerable groups, seafaring and tourism workforce should be considered as the essential target, owing to their specific professions.

This pandemic has confirmed the importance of the World Health Organisation as the key, global, public health authority that issues relevant documents such as the International Health Regulations referring to the international transport of passengers and commodities.

References:

- [1]. BIMCO. Manpower Report. The global supply and demand for seafarers in 2015. Executive Summary. International Chamber of Shipping, 2015.
- [2] WHO. Weekly epidemiological update on COVID-19 - 30 March 2021. Available at: <https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---31-march-2021> (accessed: 2021-05-27)
- [3] International Chamber of Shipping. COVID-19 Vaccination for Seafarers and Shipping Companies: A Practical Guide. <https://www.ics-shipping.org/publication/coronavirus-covid-19-vaccination-practical-guide/> (accessed: 2021-05-27)
- [4] United Nations. Transport and Trade Facilitation. COVID-19 and Maritime Transport Impact and Responses. https://unctad.org/system/files/official-document/dtltlb2021d1_en.pdf (accessed: 2021-04-30).
- [5] Ministry of Sea, Transport and Infrastructure. Guidelines for adoption of extraordinary measures resulting from the COVID-19 pandemic. https://mmpi.gov.hr/UserDocsImages/dokumenti/MORE/More%2021/MSTI%20PANDEMIC%20GUIDLINES%20EX-TRODINARY%20MEASURES%205-3_21.pdf (accessed: 2021-04-20).
- [6] Baygi F., Khonsari N. M., Agoushi A., Hassani S., Gorabi G. A. M., Qorbani M. Prevalence and associated factors of psychosocial distress among seafarers during COVID-19 pandemic. BMC psychiatry 2021;222:191-204. doi: [10.1186/s12888-021-03197-z](https://doi.org/10.1186/s12888-021-03197-z) Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8085649/> (accessed: 2021-05-10).
- [7] Rašić Bakarić I. Turizam. Sektorske Analize. Ekonomski Institut Zagreb. 2019; 72(8):2-3.
- [8] Nautical tourism in Croatia during the coronavirus pandemic. Available at: https://euronautc.eu/blog/194652/nautical_tourism_in_croatia_during_the_coronavirus_pandemic/ (accessed: 2021-05-05).
- [9] WHO. WHO Official - COVID-19 vaccine updates - who.int Available at: [https://www.who.int/news-room/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines](https://www.who.int/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines) (accessed: 2021-05-05).

- [10] Ministry of Health of the Republic of Croatia. Osniva se Nacionalni krizni stožer zbog koronavirusa. <https://zdravlje.gov.hr/vijesti/ministarstvo-zdravstva-osniva-se-nacionalni-krizni-stozer-zbog-koronavirusa/4956> (accessed: 2021-05-27).
- [11] Croatian Institute of Public Health. Cijepljen svaki peti građanin Hrvatske. 01/05/2021. Available at <https://www.hzjz.hr/priopcenja-mediji/cijepljenje-u-petoj-brzini-ali-vozimo-oprežno/> (accessed: 2021-05-05).
- [12] Doumbria-Henry C. Shipping and COVID 19: protecting seafarers as frontline seafarers. WMU Journal of Maritime Affairs 2020; 19:279-293. <https://doi.org/10.1007/s13437-020-00217-9>
- [13] Hebbar A. A., Mukesh N. Covid-19 and seafarers' rights to shore leave, repatriation and medical assistance: a pilot study. Int. Marit. Health 2020;71(4):217-228. <https://doi.org/10.1007/s13437-020-00217-9>
- [14] Kumar S., Jolly A. Consequences of COVID-19 pandemic on global maritime trade industry Int. Marit. Health 2020; 72(1):82-83. <https://doi.org/10.5603/IMH.2021.0014>